

TEXTILE ARTS AS A COPING MECHANISM FOR AN ADOLESCENT WHO HAS  
EXPERIENCED LIFE STRESSORS

by

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The current case study explores how textile arts can be used as a coping mechanism for an adolescent who has experienced life stressors, including a chronic illness and repeated hospitalizations. The adolescent participant was recruited from James and Connie Maynard Children's Hospital in Greenville, NC. Three one-hour sessions were conducted in which the principle investigator taught the participant how to knit. Data were collected from a demographic survey, an open-ended questions interview, and the interactions/conversations that took place during the three knitting sessions. For the participant, knitting was a distraction from hospitalization which typically comprises of pain, boredom, and loneliness. Additionally, learning to knit was also a doorway to conversation, and the beginnings to building a trusting relationship. Finally, knitting provided a means for the patient to experience positive emotions such as increased motivation, creativity, excitement, and satisfaction. Though further research is necessary in this field of study, findings indicate that knitting by an adolescent experiencing stress can be a catalyst for positive emotions, relationship building, and sharing skills with others.



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Presented to the Faculty of the Department of Human Development and Family Science  
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Master of Science in Human Development and Family Science

by

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## **CHAPTER 1: INTRODUCTION**

The adolescent age period is a unique time in life. Adolescents are not yet adults, but are quickly outgrowing their childhood ways. It is the time period in life that falls between childhood and emerging adulthood, and is often divided into three distinct time periods- early, middle, and late adolescence (Spano, 2004). This time is often viewed as a transitional period in which all domains of development are rapidly changing. Physically, adolescents begin puberty and experience rapid and full adult growth. According to Jean Piaget (1964), adolescents enter into the formal operations, the final stage of cognitive development, in which they are capable of thinking abstractly, deductively, and hypothetically. Socially, adolescents choose to separate from parents with the goal of becoming more independent from adults, at the same time become much more interested in forming a dependence on peers and friend groups. Finally, according to Eric Erikson (1968) adolescents emotionally wrestle with the crisis of identity versus role confusion in which they fight to develop a feeling of who they are and their place in the world.

Not only are adolescents affected by their natural developmental processes, but there are situational events and conditions that can threaten the typical development of adolescence. Adverse childhood experiences (ACEs), hospitalization, homelessness, and incarceration are just a few examples of situations that can have significant and long-lasting affects on adolescents.

Whether it is day-to-day life stressors or traumatic events, everyone will experience stress to some degree. In order to deal with and make sense of this stress, individuals find ways to cope. Lazarus' Transactional Model of Stress and Coping is the most frequently cited model used in conjunction with children and adolescents, thus will be used as the framework through which guides this research. According to Lazarus and Folkman (1987), stress is a transaction between a person and his or her environment. The main negotiator between this transaction is

appraisal, and managing the appraisal comes in the form of coping. Problem-focused and emotion-focused are the two types of coping, and various factors such as age, developmental level, and resource affect how individuals cope.

Not all coping is considered adaptive, so it is important to engage in healthful actions and behaviors in order to cope effectively. Some people turn to activities, hobbies or crafts in order to deal with life stressors. Though not heavily recognized, textile arts can be used as a therapeutic intervention for dealing with both every-day stress as well as chronic or traumatic stress (Corkhill, Hemmings, & Maddock, 2014; Washington, Moxley, & Garriott, 2009). Textile arts have been proven to benefit all domains of development—cognitive, physical, social, and emotional. It has also been found that textile arts can be used as a method of dealing with difficult situations such as chronic illness, homelessness, addiction, and so on (Corkhill et al., 2014; Washington et al., 2009; Wilson, 2014).

Most of the research on the benefits of textile arts used adult samples; consequently, there is a paucity of studies addressing the benefits of adolescents engaging in textile arts as a way to cope with stressful situations. With numerous adolescents in the United States facing stressful or traumatic situations in life, it is imperative for these adolescents to learn healthy coping strategies. Engaging in effective coping can prevent the negative health outcomes that are so often associated with stress. The purpose of this paper is to address how textile arts can be used as a meaningful and creative strategy to address the consequences of adolescents experiencing major life stressors. Specifically, the following research question will direct the course of the future research:

How can textile arts be used as an effective coping tool for adolescents who have experienced stress, specifically hospitalization?



## **CHAPTER 2: LITERATURE REVIEW**

Prior to attempting to understand how adolescents, coping, and textile arts inter-relate, it is important to understand each topic more fully. Adolescents predictably follow a typical path of development. However, there are threats to typical development that can produce various negative health outcomes. It is ideal for adolescents to cope appropriately to these threats in order to withstand the potentially negative consequences. The current study utilizes Lazarus' Transactional Model of Stress and Coping as it relates to adolescent coping. Additionally, the benefits of engaging in textile arts will be discussed to further examine if and how textile arts can be used as a mechanism for coping with stress. This literature review will examine the topics of adolescents, coping, and textile arts, before asking the question how all these topics have the potential to be connected to each other.

### **Adolescents**

Adolescence is a transitional period that bridges the gap between childhood and adulthood. This is a unique time in a person's life, often marked by rapid change in all domains of development (Berk and Meyers, 2016). Adolescence was historically associated with the teenage years (ages twelve to eighteen); however, age cannot be such a limiting factor anymore. Adolescence was once viewed as beginning at the onset of puberty and lasting until the age of legal adulthood; however, puberty is now beginning earlier than ever and full adult physical growth is currently often reached well into the twenties (Spano, 2004). Though the parameters of adolescence are not clear cut, there are consistent behaviors and development that occurs in the adolescent years. In order to gain a better understanding of adolescence, it is not only important to understand the basic developmental aspects of this age group but to also understand situational factors that can threaten that development.

## **Typical Adolescent Development**

Adolescence is often divided into three distinct time periods- early, middle, and late adolescence. According to Spano (2004), early adolescence encompasses ages twelve to fourteen, middle adolescence is ages fifteen to sixteen, and late adolescence is seventeen to nineteen.

In general, adolescence is a time of seeking independence, distancing from parents, and cultivating relationships with peers. During early adolescence, adolescents begin to realize parental imperfections and start to search for people to care for in addition to their relationship with their parents. Developing close friendships with others becomes a great importance (Eccles and Roeser, 2011). Adolescents are often influenced by their peers in interests and outer appearance styles. Though they are beginning to move more towards independence, this specific age group has a tendency to revert back to childhood behaviors such as clinginess, shyness, defiance, talking back, and whining (Spano, 2004). Early adolescents also begin to have an interest in future careers, yet are predominately consumed with the present or near future events. Finally, this time in adolescence is a time of pushing limits and testing rules. Sometimes this comes in the form of experimenting with smoking, drinking, and using drugs (Malloy, Lamb, & Katz, 2011; Spano, 2004).

According to Spano (2004), as individuals in middle adolescence move more toward independency, they seek to distance themselves from their parents in order to form new friend groups amongst friends. Tensions often arise as adolescents believe parents keep them from obtaining independence (Lamb and Lewis, 2011; Spano, 2004). As adolescents' bodies begin to change, they become much more concerned about their physical appearances. When looking toward the future, they begin to gain a greater appreciation for knowledge and also start to look

inward for self reflection. Writing in journals often begins during middle adolescence. They are able to set goals of greater capacities than before, and typically develop a preference for role models. Middle adolescence is a time marked by growth in moral reasoning, and signs of a more consistent conscience (Spano, 2004).

As individuals in late adolescence begin to move more toward independence, identity, interests, personality, and self concept all become more solidified. Individuals begin showing a greater concern for others, experience increased emotional stability (Eccles and Roeser, 2011), and develop a greater sense of humor (Spano, 2004), and sense of self (Thompson, Winer, & Goodvin, 2011). Additionally, adolescents in this time period are able to delay gratification as well as think through ideas and verbalize thoughts and feelings at a greater degree. As late adolescents look to the future, they have a greater concern for the future than ever before, and also ponder about their role in the greater scheme of life. Finally, in late adolescents, individuals develop an acceptance and an appreciation for social institutions, cultural traditions, and religious preferences (Spano, 2004).

**Cognitive/Language.** Adolescents are no longer confined to only the things they can see and hear, as experienced in earlier childhood. They can now consider the past, present and future, and are able to engage in thought that is independent of action ((Berk and Meyers, 2016; Piaget, 1964). Adolescents are able to organize concepts and ideas strictly in their minds. In previous developmental stages, when thinking about these same concepts and ideas, children would have only been able to draw out the situation, or have the concepts physically in front of them in order to make sense of the ideas (Piaget, 1964). According to Jean Piaget (1964), the most renowned cognitive developmental theorist, many adolescents enter the formal operations stage of cognitive development. While not all adolescents have the capacity to reach formal

operations, those who do will eventually reach full adult thinking that then continues into adulthood. Thinking at this age becomes intensely hypothetical and abstract. Cognitively, most adolescents are capable of deductive and abstract reasoning, independent decision making, and understanding other people's perspectives (Piaget, 1964). According to Inhelder & Piaget (1955), adolescents begin to think outside of themselves and about others while also grasping concepts such as love, justice, and freedom. They become dreamers and create idealistic ways to better society. Though the brain is not fully developed until the mid twenties, adolescents are able to engage in the most complex type of cognitive thinking (Murty, Calabro, & Luna, 2016). Formal operations is the highest and most complex form of thinking, that continues into and throughout adulthood (Piaget, 1964).

In addition to Piaget's cognitive development, developmental theorist L.S. Vygotsky argued that cognitive development does not come from within the child alone. He contended that culture and environment play a significant role in the development of human thinking (Vygotsky, 1930). Our minds are continuously influenced by cultural signs and other people around us. Vygotsky claimed that the highest levels of cognitive thinking require instruction from others in order for this kind of thinking to be fully activated. Though adolescents may reach some of these abstract concepts on their own, without instruction from others (particularly in math and writing), they will not fully develop pure abstract thinking and concepts (Vygotsky, 1934). Finally, adolescents continue to expand upon their speech and writing skills, as well as increasing their oral and written vocabulary. While adult language is typically forming, adolescents often use peer dialect and jargon to communicate in informal settings (Spano, 2004). This only furthers Vygotsky's claim that cognitive development is greatly influenced by the environment.

**Physical.** While cognitive changes might not be very noticeable to adolescents themselves, physical transformations become very apparent. During and after the onset of puberty, the body grows rapidly and changes in unique and puzzling ways (Berk and Meyers, 2016). The first areas to grow are the extremities, followed by the arms and legs, and then finally the core. According to Spano (2004), girls will typically experience both height growth spurts and puberty before males. Additionally, on average females begin puberty roughly two years before males do. For females, menstruation marks the start of puberty. Puberty also produces breast development, pubic and underarm hair, more body sweats, and oilier hair and skin. For males, puberty is marked by nocturnal emissions, the deepening of the voice, pubic, underarm and facial hair growth, as well as growth of testicles and the penis (Berk and Meyers, 2016; Spano, 2004).

In addition to changes brought on by puberty, other physical changes continue as well. Males will experience a great increase in muscle size and strength, while females will experience an increase in body fat. Female adolescents will typically attain full adult growth by the end of adolescence, but males will often continue growing into early adulthood (Berk and Meyers, 2016). Often times adolescents experience such rapid physical growth during this time, they are hardly able to recognize themselves, which can lead to insecurities (Spano, 2004). Additionally, there is often sleep and appetite changes that occurs during this time, and adolescents frequently experiment with fad diets to gain/lose weight in order to fit the “ideal” body image. Physical appearances become extremely important for the adolescent, as “fitting in” seems critical (Erikson, 1959).

**Social/Emotional.** Per typical developmental progression, adolescents choose to separate from parents with the goal of becoming more independent from adults. They do however, become much more interested in forming a dependence on peers and friend groups (Berk and

Meyers, 2016). Close friendships in early adolescence typically comes in pairs with same sex friendships, but as adolescents mature, many become close friends with those of the opposite sex. This often leads to the start of dating (Steinberg & Morris, 2011).

Erikson's (1968) theory of adolescent identity development views adolescences as a time of self-exploration, and determining how one fits into the larger social order. According to this theory, adolescents are wrestling with the crisis of identity versus role confusion. They are developing a feeling of who they are and their place in the world. They are seeking to determine occupation, religion, politics, and relationships. As adolescents often become overwhelmed by wanting to fit into the larger society, they also become confused by the countless options they have before them. Conflict often arises within adolescents because they feel there are too many decisions to make at too young of an age, and each decision will then limit future endeavors. Because adolescents are typically so unsure of who they are, they try to fit in with certain peer groups in order to find belonging and purpose (Erikson, 1959). Furthermore, because this is a time of great physical and sexual change, adolescents become consumed with the pressure to meet others' expectations. This creates a sense of competition; thus, adolescents also find a sense of their identity through accomplishments. Whether this is in school, sports, arts, or other activities, adolescents define themselves by the things they can do and accomplish (Berk and Meyers, 2016; Erikson, 1959).

### **Threats to Typical Adolescent Development**

Though natural development may have a large impact on adolescent development, there are numerous negative situational factors that can contribute to a disruption of typical adolescent development. Though this list is long, adversity such as adverse childhood experiences (ACEs),

hospitalization, homelessness, and incarceration are the four situational factors that will be discussed in this paper.

**Adverse Childhood Experiences.** One of the most significant threats to typical adolescent development is adverse childhood experiences (ACEs). According to Santoro, Suchday, Benkhokha, Ramanayake & Kapur (2016), childhood adversity, “refers to experiencing abuse (e.g., sexual, physical, psychological), neglect (e.g., physical, environmental, emotional), or significant household dysfunction (e.g., living with a household member who is diagnosed with a mental illness, abusing substances, or incarcerated) during the developmental years, specifically before 18 years old.” Over half of adolescents in the U.S. have experienced at least one ACE in their childhood. Alarming, 28% of adolescents have experienced at least two, and 17% have experienced three or more ACEs (Balistreri & Alvira-Hammond, 2016). Childhood adversity has the power to not only lead to negative mental and physical health outcomes, but has the power to impact health and functioning throughout the lifespan (Santoro et al., 2016). ACEs have been linked to adolescent depression, suicide, alcohol and drug abuse, premature mortality, chronic health problems, interpersonal violence, and behavioral problems. The more ACEs children experience, the higher the odds are for poor health outcomes. In fact, Balistreri & Alvira-Hammond’s (2016) research shows that adolescents who have experienced four or more ACEs are twelve times more likely to experience negative health outcomes across the lifespan than those who have not experienced any ACEs.

It has been found that the structure and function of the brain, as well as long term changes in the nervous, immune, and endocrine systems are common among individuals experiencing multiple ACEs (Danese & McEwen, 2012; Harris, 2014). Individuals with a history of adversity demonstrate an inability for proper prefrontal cortex growth, thus resulting in smaller volumes of

the prefrontal cortex as opposed to those who have not experienced adversity (Danese & McEwen, 2012). According to pediatrician Dr. Nadine Burke Harris, the prefrontal cortex is responsible for impulse control and is the command station for learning. Thus, those who experience disruptions in prefrontal cortex development have a more difficult time regulating emotions and learning new things. Their brains have been rewired in a way that makes these actions more challenging. There are also differences in the amygdala section of the brain, which is responsible for the body's fear response (Harris, 2014). In individuals who experience extended periods of stress, the amygdala becomes smaller and more reactive to stressful events. Long-term changes to the amygdala decrease the threshold for reacting to emotional events (Tottenham & Sheridan, 2009). Because of these differences in the prefrontal cortex and the amygdala, those whom are exposed to childhood adversity are neurologically more likely to partake in high-risk and unhealthy behaviors (Harris, 2014).

Even for those who do not engage in high-risk activities--smoking, drinking, drugs, etc.--individuals who have experienced ACEs are still more likely to experience negative health outcomes. For instance, they experience greater activation of the hypothalamic-pituitary adrenal axis (HPA axis) (Danese & McEwen, 2012), and the body's stress response system (Harris, 2014). This system produces adrenaline and cortisol which in turn increases heart rate, airflow, and dilates pupils. This is imperative and healthy in fight-or-flight situations, but can become harmful when this is experienced on a day-to-day level which is what occurs in childhood adversity. This is particularly harmful for children, as it creates detrimental patterns for a developing brain (Harris, 2014). The constant exposure to stressful situations in childhood can lead to harmful long-term effects on overall health and well-being of individuals (Danese & McEwen, 2012)



**Hospitalization.** Hospitalization is an experience that has the potential to impact adolescent development in significant ways. At a developmental time when so much is happening physically and emotionally, hospitalization becomes a threatening experience for adolescents for many reasons outside of the medical reasons in which they were admitted. In the classic study, Vernon, Foley, Sipowicz, & Schulman (1965) state that a significant amount of adolescents who are admitted to the hospital, for any amount of time, suffer from psychological upset. High levels of stress are the result when normal needs are not being met due to variables associated with hospitalization (White & Walker, 1993). Adolescents are uniquely vulnerable to the threats of hospitalization for a multitude of reasons. Firstly, hospitalization risks adolescents being separated from their peers. Because adolescents are so dependent on those social circles, the separations often create feelings of isolation and being left out. Even though technology helps adolescents feel more connected than before technology made connecting so easy, they can still feel the effects of being physically removed from their peers. On the other hand, while adolescents are becoming increasingly independent of adults, hospitalization requires adolescents to once again become dependent upon adults to meet their basic needs (Vernon et al., 1965).

Hospitalization also disrupts day-to-day routines as well as future plans. Adolescents whom are hospitalized long-term often miss out on school, sports, and other extra curricular activities. Sometimes they are required to stay back a grade or forfeit participating in team sports or other activities (Gustella, Ward, & Butler, 1998). Besides disruptions in social relationships, hospitalized adolescents have a substantial risk of disengagement from education which can have long lasting effects. Disengagement can have significant impacts on “occupational attainment, earning ability and quality of life” (Hopkins, Nisselle, Zazryn, & Green, 2013, p. 38). According

to Hopkins et al., (2013), the social and educational impact acute and/or chronic health issues has on adolescents can be significant.

Being controlled by medical conditions, treatments, and hospitalization can also feel very constricting for adolescents. Their ability to make independent decisions is often restricted, leaving them at the disposal of the hospitalization. Not only does this make identity formation more difficult, but long-term hospitalization can lead to isolation, anxiety, and depression, and other mental health concerns (Hopkins et al., 2013).

Another major concern adolescents experience with hospitalization is an increase in body image insecurities. There is often a lack of privacy that comes with hospitalization, as well as various ways bodies change due to differing medical conditions (Rollins, Bolig, & Mahan, 2005). Weight change, scars, hair loss, discoloration, loss of limbs, and bodily disfigurement are all examples that can contribute to adolescent insecurity. Additionally, as adolescents are developing their sexuality, concerns about how the hospitalization will affect their sexuality can be a great cause for anxiety. Hospitalization can limit sexual exploration. Because hospitalization can strip individuals of identity, physical appearances, and privacy, hospitalization threatens levels of self worth and well-being (Rollins et al., 2005). Overall, hospitalization has the potential to affect adolescents in a multitude of ways

**Homelessness.** Homelessness is another significant life situation that has the potential to threaten adolescent development. In the United States, homelessness touches a large number of the adolescent population. In 2013 almost 2.5 million children and adolescents were homeless. Adolescents who are homeless with their families comprise 37% of the U.S. homeless population. Homelessness negatively impacts adolescent health and development in numerous ways, both in the immediate and the long-term. Homelessness poses the threat of adolescents

experiencing multiple adverse life experiences (Gilbertson, Chatterjee, & Barnes, 2016). More specifically, they are more likely to suffer from persistent diseases, hunger, and malnutrition (American Academy of Pediatrics, 2013). They also have a higher risk of experiencing threatened brain development, lifelong health concerns, maltreatment, self-harming behaviors, and suicide (Gilbertson et al., 2016). In fact, suicide is the leading cause of death for adolescents whom are currently homeless (Marshall & Hadland, 2012). Additionally, homeless adolescents often suffer from serious psychosocial problems, and repeated school absences. Homelessness is a serious public health concern, and in and of itself is enough to lead to poor health outcomes for adolescents. But more times than not homeless adolescents are additionally exposed to numerous secondary ACEs paired with homelessness, which creates a cumulative risk of negative health outcomes (American Academy of Pediatrics, 2013). Because homelessness can be so negatively influential for adolescents, it is important to understand the issues these adolescents face in order to identify protective factors to these individuals.

**Parental incarceration.** Parental incarceration is also associated with numerous negative health outcomes. More children and adolescents are experiencing parental incarceration than ever before as incarceration rates are increasing. According to the most recent reports, in 2008 roughly 2.7 million American children and adolescents (or one in every 28) experienced a parent in prison (Johnson & Easterling, 2014; Raymond & Shaw-Smith, 2015). Findings show that adolescents with parents in prison are a vulnerable population. They display a higher risk for delinquency (Raymond and Shaw-Smith, 2015), mental health problems, substance abuse, school difficulties and criminal behavior (Kjellstrand & Eddy, 2011). Kjellstrand and Eddy (2011) found that children with incarcerated parents are more likely to display antisocial behavior than those children without parents behind bars. Additionally, researchers have also noted anxiety,

depression, and other mental health issues as common outcomes for adolescents with incarcerated parents. Parental incarceration causes disruptions to normal life as well as instability among the family. Caregivers often change throughout incarceration which leads to inconsistency in discipline, routine, and even housing locations. Along with changes in caregivers, the social stigma attached to having a parent behind bars can cultivate shame and embarrassment for adolescents. These are all aspects that can create a stressful environment for these adolescents (Johnson & Easterling, 2014). However, most of the time incarceration is not the marker for the beginning of problems. Often parental incarceration is simply a continuation of issues such as poverty, alcohol/substance abuse problems, abuse, neighborhood violence, minimal education, and an unstable family life (Kjellstrand & Eddy, 2011). The stresses that are paired with parental incarceration often leads to long-lasting emotional and psychological disruptions such as anxiety and depression.

Because ACEs, hospitalization, homelessness and incarceration can lead to negative outcomes, it is important to identify coping factors that can be utilized to protect adolescents from the effects of negative and traumatic experiences.

### **Effective Coping**

Coping has a rich history and is one of the most widely researched topics in modern-day psychology. The beginnings of coping research dates back to the beginning of the nineteenth century, however it was not until the 1970s and 80s that coping started being viewed as a defined process, rather than a trait or outcome (Frydenberg, 2014; Lyon, 2012). The process of coping is an extremely broad construct in which researchers have noted various definitions, and is best understood as having multidimensional aspects, as well as deviations across time and circumstance. Researchers have utilized a myriad of approaches in examining ways in which

individuals cope with stressful situations, and determining a commonly agreed upon definition of coping can be a challenging task. However, despite the scope of definitions, for the purpose of this paper, the most cited definition of coping comes from the work of Lazarus and Folkman (1984), and is defined as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” (p. 141).

## **Stress**

It is impossible to talk about coping without also understanding its relationship with stress. According to Folkman (2010), “stress is defined as a situation that is appraised by the individual as personally significant and as having demands that exceed the person’s resources for coping” (p. 901). Some stress can be good as it pushes individuals to perform at a higher level; however, stress can become harmful if it persists over time leading to levels of distress (Frydenberg, 2014).

There are two types of stressors that individuals encounter- normative or non-normative. Normative stressors are common developmental stressors of everyday life. For adolescents, common normative stressors include things such as school, homework, arguments with friends, disagreements with parents, wanting to fit in, etc. Non-normative stressors are unusual or traumatic experiences. Non-normative stressors include child abuse, hospitalization, natural disasters, death, and so on (Rollins et al., 2005). If not managed properly, stress of any kind can have negative effects on both the physical body and emotional and psychological well-being. Common effects of stress on the body include headache, stomach pains, insomnia, shortness of breath and muscular tension. Mood changes include apathy, anger, depression and fatigue (Rizzolo & Sedrak, 2010). Stress is also believed to impair normal functioning and often reduces

ability for concentration, decision making, and working efficiently (Lyon, 2012). Overall, if stress is not properly addressed it can be harmful in the long-run.

### **Transactional Theory of Stress and Coping**

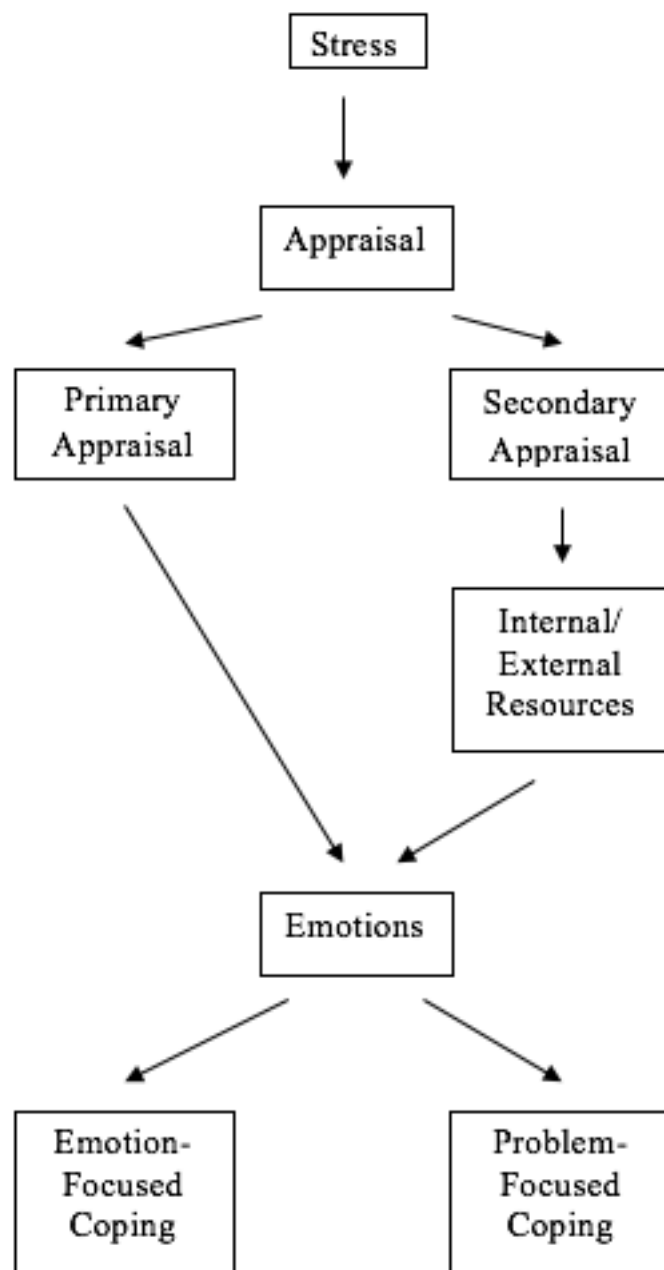
From the vast body of available research on coping, there is no single model that completely encompasses the entire process of stress and coping. However, Lazarus and Folkman's transactional model of stress-and-coping is one of the major theoretical approaches in understanding coping. Though this model was originally developed for adults, it is the most commonly used model applied to children and adolescents (Rollins et al, 2005), thus will be the framework through which guides this research.

Lazarus explains stress as a transaction between a person and his or her environment. The main negotiator between this transaction is appraisal, and managing the appraisal comes in the form of coping. Coping is not always adaptive, and according to this model comes in the form of problem-focused and emotion-focused coping styles (Lyon, 2012). Figure 1 depicts Lazarus and Folkman's transactional model of stress and coping.

### **Appraisal**

Whether consciously aware of the fact or not, individuals continuously assess what is going on around them, and evaluate how it will affect their overall well-being (Lazarus & Folkman, 1987). Appraisal of stressful situations is an examination of the stressor and determination of the personal significance of what is going on, and why and how it matters. Essentially, appraisals are addressing the question, "What does this situation mean for me and my well-being?" The appraisal process is divided into two categories, primary and secondary. Each serves a different purpose and deals with distinct types of information (Folkman 2010;

Figure 1  
*Transactional Model of Stress and Coping*



Lazarus & Folkman, 1987). Additionally, appraisals are also determined by internal and external resources (Folkman, 2010).

**Primary Appraisals.** Primary appraisals are formed by an individual's beliefs, values and goals (Folkman, 2010). During primary appraisal process, individuals also examine the nature of the potential stressor (Thompson, 2009). Primary appraisals are concerned with the 'motivational relevance' of the situation and whether or not it is harmful to well-being (Lazarus & Folkman, 1987). To gain a better understanding of this concept, consider the situation in which an adolescent comes down with a cold. The adolescent may view the cold as unimportant because it will not greatly effect any of his plans. On the other hand, the adolescent may see the cold as being a good thing, because it means he will get to miss a day of school. Or, the adolescent may view the cold as a stressful event, as he is scheduled to run in the state cross country meet and is worried he will no be able to perform at his maximum potential. Primary appraisals are judgments made about the significance of the stressful situation in relation to how it will impact daily life.

**Secondary Appraisals.** Secondary appraisal is taking inventory of resources and examining/exploring options for coping. This is shaped by opportunities for controlling the stressor outcomes, as well as incorporates available physical, material, psychological and spiritual resources (Folkman, 2010; Thompson, 2009). Contrary to the name, secondary appraisals do not always occur second to primary appraisals. They often occur simultaneously, or in some cases primary appraisals become a result of secondary appraisals. For a deeper understanding, reflect back to example in which an adolescent gets a cold. The adolescent may feel at ease if he has plenty of cold medicine and remedies he can take to make him feel better. He may assess the situation as even less stressful if a parent is available to care for him



throughout the coming days. However, this would be a different story if no medications or people were available to aid in coping with his sickness. Additionally, he might become more stressed if a medical visit is necessary but does not have the funds to do so. Taking inventory of available resources will often determine how an individual will cope with the stressful situation.

**Internal Resources.** Resources aid in coping, by helping lower distress and improving health outcomes. Internal resources such as optimism, mastery, hope, and self-esteem are aspects of individual's internal being that help promote more efficient coping (Taylor & Stanton, 2007). Optimism refers to "outcome expectancies that good things rather than bad things will happen to self" (Taylor & Stanton, 2007, p. 380). Optimism not only leads to mental and physical health benefits, but also to a greater overall well-being. Additionally, it has been found that optimism speeds recovery time from illness, and slows the course of physical disease (Taylor & Stanton, 2007). Optimism is often a trait of another internal resource- hope. Like coping, hope is defined in many different ways, but according to Folkman (2010), hope is, "yearning for amelioration of a dreaded outcome" (p. 902) Hope is something that can sustain coping, especially when enduring a long-term, uncertain stressor. Hope is beneficial in maintaining well-being throughout difficult times.

Mastery, or psychological/personal control, is another internal resource that is helpful in the coping process. Taylor & Stanton (2007) define mastery as "whether a person feels able to control or influence outcomes." This leads to better physical health incomes, a more functional self, and lower mortality (Taylor & Stanton, 2007). Moreover, self-esteem is also a protective factor against unfavorable mental and physical health issues that surface due to life's stresses. Maintaining a high self-esteem, lowers autonomic and cortisol stress responses. Conversely, prolonged production of stress responses can be damaging to overall health, so keeping high

levels of self esteem can be extremely beneficial. Lastly, not only does self-esteem protect physical bodily ailments, but it also leads to a better overall psychological well-being (Taylor & Stanton, 2007). When used properly, internal resources can be tremendously helpful in the coping process.

**External Resources.** In addition to internal resources, external resources also play a major role in the ability to cope effectively. One of the most significant external resources while dealing with stressful situations is social support. Social support is the “perception or experience that one is loved and cared for by others, esteemed and valued, and part of a social network of mutual assistance and obligations” (Taylor & Stanton, 2007, p. 381). Social support could include family, friends, neighbors, or anyone who offers comfort during times of distress. Being surrounded by those whom are supportive, especially in a time of need, reduces depression, anxiety, and other psychological distresses during times of great stress. Social support also promotes adaptation to long-term stressful events, as well as contributes to survival and better overall physical health (Taylor & Stanton, 2007).

Financial stability is another external resource that is beneficial in appraising and coping with stressors. Individuals from a low social economic status (SES) background not only have a more challenging time coping with major life stressors, but are often exposed to more stressors. Financial resources can lessen the burden stressful situations create (Taylor & Stanton, 2007). For instance, when a family member is hospitalized, not having to worry about travel costs, medical bills, and work absenteeism can make dealing with the actual stressor much more manageable.

**Emotions.** The process of appraising stressful situations often produces emotional responses. Stressful situations are either appraised as a threat/challenge, harmful, or viewed as a

loss, and all these appraisals can lead to negative emotions such as fear, sadness, anxiety, etc. (Carver & Conner-Smith, 2010; Folkman, 2010). Situations are viewed as threatening or challenging when the situation is looming and has potentially negative consequences. An example of this would be waiting for the results of a medical test to be returned. These situations lead to feelings of frustration (Folkman, 2010), anxiety, and anger (Carver & Conner-Smith, 2010). Harmful stressors give the idea that negative consequences are already present, and these situations lead to anxiety and fear. An example of a harmful stressor would be that the medical test came back positive for cancer and treatment is underway. Finally, a stressor viewed as a loss indicates that something good is no longer present, or has been stripped away. In the above example, a loss would be the person dies because of the cancer. Situations of loss lead to sadness and dejection (Carver & Conner-Smith, 2010).

### **Types of Coping**

Upon appraising the stressor, individuals use either cognitive or behavioral methods to cope with the stressor. These methods are either problem-focused or emotion-focused, and can be either adaptive or maladaptive. These methods are not completely exclusive of one another, and often both coping styles are used at the same time.

**Problem-Focused Coping.** Problem-focused coping is a form of behavior based coping that directly aims at addressing the stressor itself. This means taking action to either remove the stressor, avoid the stressor, or minimize the effects of the stressor (Carver & Conner-Smith, 2010; Gaynard, Wolfer, Goldberger, Thompson, Redburn, & Laidley, 1998). This often includes information gathering and decision making (Folkman, 2010). Additionally, problem-focused coping can also mean seeking to solve the most basic cause of the stress (Folkman & Moskowitz, 2000). Problem-focused efforts can be both inward and outward focused and aimed at either

altering aspects of self or the environment (Lyon, 2012). For example, if a hurricane is expected, citizens in the area might board up their homes, stock up on food and water, move vehicles to higher ground, or even evacuate the area, in order to stay safe during the storm. Actions are specifically being made in order to reduce the effects of the stressor. Generally speaking, problem-focused coping is the healthier of the two types of coping, as it can lead to more adaptive coping (Melendez, Mayordomo, Sancho, & Tomas, 2012).

Problem-focused coping is only beneficial when there is some degree of personal control over the situation. It can become maladaptive when the stressor is not controllable (Folkman & Moskowitz, 2000). For instance, in the event of waiting on an impending death of a loved one, there is no control over the actual death of the individual. Trying to control this stressor is not only impossible, but it is not beneficial and can actually ultimately lead to heightened stress.

**Emotion-Focused Coping.** Emotion-focused coping is cognitive coping that seeks to diminish the concerns or emotional distress that are connected to the stressor (Carver & Conner-Smith, 2010; Lyon, 2012). This form of coping aims to regulate negative emotions instead of seeking to solve the problem directly. Emotion-focused coping is often used with the stressor is out of the person's control (i.e. terminal medical condition). Combining emotion-focused coping with emotional expression can lead to healthy psychosocial modifications and decreases in depression and psychological upset (Stanton, Kirk, Cameron, & Danoff-Burg, 2000; Folkman & Moskowitz, 2004).

Emotion-focused coping can play out in many different forms. Some behavioral emotion-focused coping includes exercising, listening to music, playing music/singing, writing in a journal, or crafting. Another form of emotion-focused coping is seeking emotional support from other people. This is important as it provides the person with support, comfort, understanding

and advice from an outside perspective (Folkman, 2010). Other coping techniques include the releasing of emotions by yelling or crying, focusing on faith or spirituality, and seeking relaxation through meditation

Not all emotion-focused coping is positive. Some individuals choose to ruminate on negative thoughts as a way of dealing with stress (Carver & Conner-Smith, 2010). Others may lean toward denial, avoidance, and distancing as a way to disengage from the situation. While these strategies may be beneficial for stressful situations that will quickly work themselves out, these behaviors are not ideal for the long-term. Substance abuse, alcohol abuse, smoking, over-eating, self-blame, and scapegoating are other common emotion-focused coping behaviors that easily lead to negative outcomes. All of these behaviors only provide temporary relief and may lead to more long-term destructive outcomes. Overall emotion-focused coping is often considered more maladaptive than problem-focused if not handled properly, and can easily lead to negative health outcomes in the long run (Melendez et al., 2012).

Whether engaging in problem-focused, emotion-focused or a combination of the two coping methods, there are more effective ways to cope than others. Each type of coping has effective and ineffective (or maladaptive) coping behaviors. Effective coping behaviors lead to more positive outcomes while maladaptive coping behaviors often lead to additional stress and more negative health outcomes. Therefore, it is important when facing adversity to use healthy coping strategies in order to protect oneself against the negative effects of stress.

### **Additional Factors that Affect Coping**

**Age and Development.** Both the ages and stages of human development influence the way in which people cope with stressful situations. For example, younger children depend on adults for emotional regulation revolving around a stressor. However during adolescence,

individuals become more independent in determining self-regulating strategies to manage stress. Cognitive, emotional, and social development allows adolescents and adults to respond to stressors in a much different capacity than young children. This indicates that coping patterns are more differentiated across the lifespan (Frydenberg, 2014).

Frydenberg & Lewis (2000), reported that older adolescents are more likely to turn to maladaptive coping patterns. Instead of working harder or seeking professional, peer, or spiritual advice, they are likely to blame themselves for their stressful situations, and thus turn to actions such as over eating or abusing alcohol (Frydenberg & Lewis, 2000). While it is commonly acknowledged that the use of effective coping strategies is imperative in promoting positive health outcomes, little research has been conducted on this topic in relation to adolescents (Recklitis & Noam, 1999). Thus, it is important to encourage and advocate for adolescents to engage in adaptive coping methods in order to deal with the stresses they encounter.

**Gender.** Along with age, gender also plays a role in the way individuals cope. Generally, women are more likely to engage in emotion-focused coping and social support seeking while men typically participate in problem-focused coping. Melendez et al. (2012) discovered that women are also more likely to have a negative self-focus and avoid the stressor. Overall, men tend to use more active ways of coping while women use more emotional and less rational ways of coping (Melendez et al., 2012). According to Melendez et al. (2012) gender differences in coping can also be explained by the types of situations men and women are exposed. Women are more likely to be stressed over health, family, and relationships while men are more likely to be stressed over jobs and finances. As gender roles are changing, this may alter, but it still remains true today (Melendez, 2012). Overall, men and women cope differently and it is important to keep this in mind when considering how individuals cope with difficult situations.

## **Adolescent Patterns of Coping**

As previously mentioned, coping is not always accomplished in a healthy manner. When coping is considered maladaptive, it can lead to negative consequences such as alcohol or substance abuse, self-blame, and acting out. Certain patterns of behavior such as denial, regression, withdrawal and impulsive acting out all contain aspects of unhealthy coping. For example, denial, which is acting as if the stressor does not exist, is only a temporary protection, but does not actually address the stressor. Conversely, coping can be extremely effective and patterns such as altruism, humor, suppression, anticipation, and sublimation comprise some healthy aspects of coping. Table 1 highlights adolescent coping patterns, their characteristics, and consequences (Brenner, 1984).

Table 1  
*Adolescent and Childhood Patterns of Coping*

Patterns of Coping	Characteristics	Consequences
Denial	<ul style="list-style-type: none"> <li>• Evasive action</li> <li>• Acting as though the stressor does not exist</li> <li>• May use fantasy to alleviate reality</li> </ul>	<ul style="list-style-type: none"> <li>• Simply a temporary protection, but doesn't actually address the stressor</li> </ul>
Regression	<ul style="list-style-type: none"> <li>• Evasive action</li> <li>• Acting younger and reverting to earlier behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Potential to become more dependent and demanding on adults</li> </ul>
Withdrawal	<ul style="list-style-type: none"> <li>• Evasive action</li> <li>• Taking themselves physically or mentally out of the picture</li> </ul>	<ul style="list-style-type: none"> <li>• Only temporary respite from the stressor</li> </ul>
Impulsive Acting Out	<ul style="list-style-type: none"> <li>• Evasive action</li> <li>• Acting impulsive, hyper, and out of line, to avoid thinking of stressor</li> <li>• Conceal their feelings by making others angry</li> </ul>	<ul style="list-style-type: none"> <li>• Self destructive in the long run</li> </ul>
Altruism	<ul style="list-style-type: none"> <li>• Accepting mechanism</li> <li>• Helping others and in turn forgets own stressors</li> </ul>	<ul style="list-style-type: none"> <li>• Gains satisfaction</li> <li>• Can be challenging for these children to feel carefree</li> </ul>
Humor	<ul style="list-style-type: none"> <li>• Accepting mechanism</li> <li>• Joke about stressors</li> <li>• Uses humor to hide pain</li> </ul>	<ul style="list-style-type: none"> <li>• When taken to the extreme, difficult to accept help from others</li> </ul>
Suppression	<ul style="list-style-type: none"> <li>• Accepting mechanism</li> <li>• Temporarily pauses anxieties for to engage in more enjoyable activities</li> </ul>	<ul style="list-style-type: none"> <li>• Can lead to denial</li> </ul>
Anticipation	<ul style="list-style-type: none"> <li>• Accepting mechanism</li> <li>• Ability to plan for, prepare, and protect self for next stressor</li> </ul>	<ul style="list-style-type: none"> <li>• Potential to become overly fearful of upcoming stressor</li> </ul>
Sublimation	<ul style="list-style-type: none"> <li>• Accepting mechanism</li> <li>• Children express their emotions surround the stressor by fully engaging in games, sports, hobbies, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• May become so engrossed in these activities, that other aspects of life are ignored</li> </ul>



## Adolescent Coping Styles

In addition to coping patterns, Kuttner (1996) state that adolescents fall into four different coping styles. These coping styles explain how children may approach problem or emotion-focused style coping. Kuttner's (1996) coping patterns are defined and explained in Table 2.

Table 2  
*Adolescent and Childhood Coping Styles*

Coping Styles	Characteristics
Catastrophizer	<ul style="list-style-type: none"><li>• No amount of information reduces child's anxieties</li><li>• Everything gets blown out of proportion</li><li>• Focuses on the negatives, and seeks to escape or avoid stressor</li></ul>
Sensitizer	<ul style="list-style-type: none"><li>• Seeks to gain as much information as possible</li><li>• They feel that the more they know, the more they can manage</li></ul>
Minimizer	<ul style="list-style-type: none"><li>• Tends to down play any information received about the stressor</li><li>• Privately digests info, but best if only given the highlights</li></ul>
Denier	<ul style="list-style-type: none"><li>• Refuses to acknowledge or accept the stressor at hand</li><li>• Much more common in adults than children</li></ul>

## **Textile Arts**

To effectively cope with stressors, it is important to engage in healthy behaviors. Though these behaviors may differ from person to person, there are specific activities that may be beneficial for certain individuals. Just as emotion-focused coping is more beneficial than problem-focused coping in certain situations, and vice-versa, textile arts may be a healthy option for coping with stress. For the purpose of this study, textile arts will be examined as a therapeutic method for coping with life stressors. Riley, Corkhill & Morris (2013) define textile arts as, “cover(ing) a broad range of specific techniques and practices that, through hands-on engagement with equipment and materials, result in the production and/or embellishment of fabric” (p. 51). Textile arts include, but are not limited to, knitting, weaving, quilting, sewing, crocheting, and needle point.

### **Benefits of Textile Arts**

There is a paucity of literature referring to the benefits of textile arts. Most of the literature concentrates on visual and performing arts, while textile arts such as knitting, sewing, quilting and weaving are not well recognized as a therapeutic intervention (Corkhill, Hemmings, & Maddock, 2014; Washington, Moxley, & Garriott, 2009). Although scarce, there have been some studies that show textile arts, especially knitting, as being highly beneficial for all domains of development- cognitive, physical, social, and emotional.

**Cognitive.** Participation in textile arts has been found to benefit cognition on multiple fronts. Engaging in knitting is linked to increased thinking abilities, problem solving, memory and concentration (Corkhill et al., 2014; Riley et al., 2013). In addition, knitting helps individuals clear their thoughts, as well as distracts from negative thoughts. In a study comprised of 3,500 participants world wide with the average age between 21 and 30 years, Riley et al. (2013), found

that knitting allowed the participants to pay attention to other things more easily. Whether that be watching TV, listening to a lecture, or having a conversation, individuals were able to concentrate better on those other tasks while knitting. Finally, mathematical, planning, and organizational skills, as well as visual and spatial awareness have also been found to increase because of knitting (Riley et al., 2013).

Similar to knitting, Brody (2016) reports that quilting aids in increasing memory function in older adults (Brody, 2016). Quilting can fall anywhere on a continuum where being mentally stimulating is on one end and being reflective of a meditative state on the other. It can be a mentally engaging activity in which the individual must think critically in order to complete complex and technical quilts. Or on the other hand, quilting can also be relatively mindless and repetitive. This all depends on the quilter's skill level and preference (Dickie, 2011). Either way, quilting is a beneficial tool in keeping the mind active and sharp. In addition to knitting and quilting, crocheting benefits cognition in many of the same ways as the other textile arts do. According to Myers (2011), crocheting also contributes to keeping the mind active and aids in warding off Alzheimer's Disease. Overall, textile arts help stimulate the brain in ways that leads to positive psychological and physical outcomes.

**Physical.** Not only does engaging in textile arts contribute to increase cognitive functioning, but it also aids in improving physical health. The act of knitting actually creates physiological changes within the body which helps knitters fight anxiety, stress and depression. These physiological changes include: reduced breathing rates, heart rate (Stannard & Sanders, 2015) and blood pressure, as well as reductions in harmful levels of cortisol- the stress hormone (Brody, 2016). Knitting and crocheting are also beneficial in keeping hands and fingers nimble,

which is particularly helpful for the elderly or those suffering from arthritis. It helps with dexterity and reinforces fine-motor control (Myers, 2011).

Quilt makers also speak on similar bodily benefits quilting provides. For instance, the repetitive use of fine motor skills provides a sense of restoration (Dickie, 2011), especially for those fighting arthritis (Brody, 2016). Not only does quilting have positive affects on the physical body, but it is an activity that can be accomplished in the midst of physical decline or disability. Quilting is often a task that is pursued when coping with long term medical conditions, recovery from surgery, or being a caregiver for a loved one with an illness (Dickie, 2011). Finally, the texture of fabric, as well as the warmth of the fabric from ironing, is said to be pleasant, comforting, and deeply satisfying.

Interestingly, crocheting also keeps eye muscles toned due to the constant change in focus while crafting. It has also been proven that crocheting is an effective tool in managing chronic pain (Myers, 2011).

Knitting, crocheting and cross-stitching have all been found to be an effective tool in both reducing and managing pain (Myers, 2011). Corkhill (2007) suggests that the brain can only process so much at one time, and when one is cross-stitching, knitting, or crocheting, it makes it more difficult for the brain to register those pain signals. These textile arts take the pain away from the forefront of one's mind, and allows the focus to be on the created good (Corkhill, 2007). Textile arts such as cross-stitching, knitting, and crocheting are extremely beneficial in managing pain outside of the home as well, as these crafts are very portable and can be taken just about anywhere (Corkhill et al., 2014; Stannard & Sanders, 2015). This helps improve feelings of control for those that are controlled by pain, and can also aid in dealing with the anticipation of pain by distracting one's thoughts (Corkhill, 2007).

**Social.** Knitting has become a much more popular craft in recent years, thus many social media knitting sites and local knitting groups have emerged, connecting knitters all over the country and world (Sannard & Sanders, 2015). According to Sannard & Sanders (2015), knitting circles, or groups, are established when men and women decide to participate in knitting outside of their homes. There are numerous positive social benefits to being a member of a knitting group. Some of these benefits include spending time with other crafters, learning new skills from others, and connecting with those with similar interests.

Corkhill et al. (2014) reports that 90% of the 3,514 participants, ages 21-60 years, indicated having had made at least one friend by attending a knitting group. It was also found that those who knitted with other people, reported feeling happier, calmer, excited, useful and better. This was especially true for those who also reported having depression. Knitting in a group helped these individuals feel better about themselves, and felt happier by the time the knitting session was complete (Riley et al., 2013). Knitting groups encourage community, sharing of experiences, mutual learning and exploration. Even for shy, intimidated, or introverted individuals, knitting groups can be a safe environment for these individuals. Because the focus is on knitting, and hands are occupied with an activity, participants feel the freedom to engage in the group as much as they are comfortable (Corkhill et al., 2014). Knitting in a group with other people leads to feeling more confident and creates a sense of belonging (Riley et al, 2013).

Knitting is not the only textile art completed in a group setting. Quilting in a group setting allows for participants to reflect of traumatic experiences, comprehend the vastness and the intricacies of their current situations, and cogitate how to overcome the issues that threaten personal health (Washington et al., 2009). According to Washington et al. (2009), eight African American women transitioning out of homelessness completed a five week quilting group

workshop intervention. The women met once a week for approximately two and a half hours for each session. Each woman was responsible for creating a patch that held personal meaning that would then be used in the completion of one quilt. A facilitator was there to instruct the quilting process, as well as guide conversation amongst the participants (Washington et al., 2009).

Interacting while creating the quilt allowed for the participants to become more comfortable opening up and sharing their life experiences, than they would have been in a more formal setting. The atmosphere group quilting creates, encourages interaction, cooperation, and conversation, while also building trust and respect for other members of the group. It creates a place where individuals can learn from one another as well as feel the safety to share both experiences and helpful advice. Participants can be empowered by others, and shift their way of thinking about their own situations (Washington et al., 2009).

According to Wilson (2014), quilting can be used as a method for promoting mental health recovery. A group of 16 participants completed a quilt in eight weeks, to present to the recipient at a Sunday church gathering in Australia. During the eight weeks, mental health discussions were held while completing the quilt. Participants noted having an increased understanding of mental health at the end of the eight weeks. Additionally, they indicated an increased unity amongst the quilting group, as well as a sense of altruism in completing the quilt for someone else. The recipient of the quilt claims that the quilt had an enduring positive impact on her mental health recovery. She indicated that the quilt is a constant reminder of the care and support she has from other members of the church (Wilson, 2014).

**Emotional.** Psychologically, the rhythmic and repetitive nature and motion of knitting is both calming and therapeutic for knitters (Corkhill et al., 2014). It is often equated to having a meditative quality. The meditative benefits of knitting allow the knitter to to step away from

hectic life circumstances, and simply focus on the creative knitting process (Dickie, 2011; Stannard & Sanders, 2015). Additionally, the process of knitting regularly leads to a finished product which is generally accompanied by a great sense of accomplishment (Corkhill et al., 2014). Not only does knitting lead to achievement and success, but it also provides a creative outlet for personal self expression (Riley et al., 2013). Overall, Riley et al. (2013) found that engagement in knitting can help with: motivation, self-esteem, sense of self, positive identity, quality of life, personal growth, sense of competence, achievement, sense of control, and choice.

Similar to knitting, quilting allows quilters to focus on something outside themselves. Quilters are able to sort out their feelings while keeping their hands busy with a task. Quilting helps absorb emotions, as well as contributes to feelings of achievement during times of great stress (Dickie, 2011). Dickie (2011) reported that quilting contributes to increased well being, as well as being an effective tool in dealing with both daily life as well as traumatic situations.

Overall, engagement in textile arts leads to various and multiple health benefits. Textile crafting increases cognitive functioning, calms the body and mind, and enhances fine motor skills. They also have the potential to create social communities, and often create a sense of identity (Sannard & Sanders, 2015), as well as increase overall well-being (Corkhill et. al., 2014; Dickie, 2011; Riley et al., 2013). Additionally, the benefits gained from engaging in textile crafts is not limited to certain demographics. Textile arts benefit people of various ages, backgrounds and experiences.

### **Textile Arts and Coping**

Textile arts are not only beneficial in the multiple realms previously discussed, but they also can be used as a specific therapeutic means in coping with major life stressors. According to Corkhill et al. (2014), knitting can be used as a therapeutic tool for coping with long-term

medical conditions. Therapeutic knitting, “seeks to create strong, resilient, flexible minds in the process...[and] takes the benefits of knitting and enhances them to improve well-being or to treat certain medical conditions (Corkhill et al., 2014).” Corkhill et al. (2014) found that 88% of the sample in their study, claimed that knitting provided a successful means of coping with their own pain, or managing the emotions of caring for someone else who is in pain. Benefits include distraction, refocusing attention, relaxation, feelings of accomplishment, control, as well as self expression.

The repetitive rhythm of knitting is important, as it contributes to a sense of relaxation and calmness which in turn gives people an effective instrument to manage pain, stress, and anxiety. Repetitive movements increase the release of serotonin, which is a calming, mood-enhancer. These repetitive movements also contribute to “automatic patterns of movement.” These movements are significant as they allow the brain to partially focus on these movements and at the same time filter out pain, as well as harmful thoughts and memories. For instance, it is reported that while engaging in automatic movements, conversations becomes deeper, easier and more meaningful. Symptoms of post traumatic stress syndrome (PTSD) subside significantly, and flashback become less frequent when the automatic movements of knitting are occurring. Additionally, the automatic movements of knitting are often remembered among individuals experiencing dementia, who previously knew how to knit. When learned in earlier in life, these skills can be used throughout the lifespan to encourage positive coping throughout (Corkhill et al., 2014).

One of the major challenges medical personnel face in caring for individuals with long-term medical conditions, is the lack of motivation from the individuals to manage their illness. Knitting allows individuals to be successful at something where ever they are- in their bed, chair,



or wheelchair, which is critical in cultivating motivation. Additionally, while knitting can be an extremely creative art form, it can also provide a sense of structure, as following specific patterns and stitches can be required. This art form is unique in the sense that it can encourage creativity within a structure. Some individuals dealing with a chronic illness need structure in order to feel safe, and knitting is a therapeutic art form that allows for this (Corkhill et al., 2014).

There are also countless knitting and other textile arts groups designated as specific therapeutic programs. For instance, Knit to Quit is a program to help smokers end the habit of smoking. Knit to Heal is a program for individuals facing challenging medical conditions (Brody, 2016). Knitting is also being taught in schools and in prisons to increase both coping and social skills (deFiebre & Writer, 2007).

### **Adolescents and Knitting**

While much of the research on textile arts (and knitting specifically) focus on adult samples, knitting is no longer viewed as a dying craft just for older women. It has made a drastic comeback in recent years, and according to the Craft Yarn Council (CYC) around 38 million people are engaging in knitting in the United States (Bee, 2014; Fields, 2014). Beginning in the early 2000s, the craft of knitting made a significant resurgence, especially among young knitters. In 2004 the CYC noted a 150% increase in knitters between the ages of 25 and 34. Knitting books, stores, groups/club, and even social media sites targeting the younger population have massively increased in recent years. For example, a website called Ravelry that is self described as “a community site, an organizational tool, and a yarn and pattern database for knitters and crocheters” was created in 2007. By 2013 there were over 3 million site users, and that number continues to grow (Fields, 2014). While this craft is becoming more and more popular among the young adult population, it is also a trendy craft among the adolescent population as well

(Johnson, 2015). Furthermore, not only is it just popular among this adolescent population, but it is also being used as a way to aid adolescents facing difficulties (Johnson, 2015; Okey, 2015).

A systematic review of literature was conducted in order to determine the current research knowledge on how textile arts can be used as an effective coping mechanism for adolescents who have experienced stress. The initial analysis was comprised of searching for empirical journal articles that were published between the years of 2007 and 2017. Articles were searched from the last ten years, in order to find the most current scientific research on adolescents using textile arts as a means of coping. Numerous online databases were searched including: PsychINFO, Wiley Online Library, Family Health, and MEDLINE via Ovid. These specific databases were searched because of their emphasis in family and child development studies. In order to search for research in this topic, several key words were used such as: adolescents, teens, teenagers, textile arts, coping, adjustment, knitting, quilting, crochet, weaving, and sewing. These terms were searched in various combinations of each other, and was modified to be more expansive as to be searched in all-text, not just in titles. Upon completing this search, zero empirical articles were found pertaining to the topic. This further strengthens the need for research to be conducted to fill the gaps that are missing in this realm of study.

Due to the lack of articles retrieved from the initial review, a new approach to the systematic review was developed to gain the most complete view of adolescents using textile arts as a form of coping with stress. Within this search, no time limits were used and all databases within ECU Libraries were searched to attain a full view of material. Keywords were also searched in Google Scholar in addition to ECU online databases. The same keywords were used in this search as with the initial review. Non-peer reviewed articles, theses, dissertations, magazine articles, and newspapers were also included in this review. Although the result of this

search still revealed zero empirical evidence, some non-peer reviewed articles did surface. Because no research studies were found, in order to gain a better understanding of adolescent coping and textile arts, non-peer reviewed articles were assessed. To follow, is a review of the non-peer reviewed articles that were found in which the authors discuss how textile arts are being used with adolescent populations to help adolescents cope with various life stressors.

In the first article, author Johnson (2015) discusses how across the country, students and teachers are creating and engaging in knitting clubs as a way to benefit students (Johnson, 2015). One example is Mary Visconti, a teacher at North Lawndale in Chicago, who created a knitting club as a way to keep her students out of trouble. Many her students come from poverty stricken neighborhoods, and the knitting club is used as a means to fight the adversity that is often attached with poverty. She describes it as a, “refuge where students can create things together and be peaceful, calm and safe.” Through knitting clubs, at-risk adolescents are able to find some stability and quiet (Johnson, 2015).

Additionally, Johnson (2015) reports that knitting is being used in hospitals as a way for adolescents to stay engaged. Willow Messier, a child life specialist/art therapist at Lurie Children’s in Chicago, claims that knitting is important for adolescents as it allows them to further explore their identity. Adolescence is a time of seeking independence, consequently learning to create something from scratch can really bolster confidence and create a sense of mastery. According to Messier, “The actual knitting process is very comforting...For kids from a challenging situation, it can bring a sense of grounding that they can take home with them” (Johnson, 2015).

Furthermore, Okey (2005) studied a program called Knitting Together a Community, and found that eighty-five children were successfully taught to knit. Numerous benefits arose from

teaching these adolescents how to knit. Firstly, learning to knit in a group cultivated community, sharing of skills, and peer mentoring. The benefits didn't stop there. When adolescents developed the skills needed for knitting, and became proficient in the craft, they developed great confidence and a stronger self-esteem. However, confidence and self-esteem are not the only things they gained. Knitting also strengthened physical skills such as hand-eye coordination, extended concentration, and fine motor skills within these adolescents. Cognitively, adolescents were also able to make gains in mathematical skills as well as increase problem solving skills (Okey, 2005). Overall, it is clear that among non-peer reviewed literature, there are numerous benefits that result among adolescents experiencing adversity from engaging in knitting. While it is apparent that the benefits of knitting are abundant, there is a paucity of research specifically focused on textile arts being used as an effective coping mechanism for adolescents. Thus, the systematic review of literature was conducted and it was determined that this specific research is lacking in scientific literature.

### **Purpose of Thesis**

It is clear that the benefits textile arts can bring to a person's life are endless. Though most of the empirical research demonstrates adults being the beneficiaries of engaging in textile arts, there is no research that addresses how textile arts can be used as a coping tool for adolescents who experience stress. Some non-empirical evidence indicates that adolescents benefit from knitting, but there is a gap in literature in regards to adolescents using textile arts as a form of coping with stress. With so many adolescents facing stressful or traumatic situations in their early life, it is imperative for these adolescents to develop healthy coping strategies in order to fight their situations and promote positive health outcomes. For adolescents a multitude of ACEs including but not limited to homelessness, hospitalization, and parental incarceration, can

pose substantial challenges and threats, and can set the stage for more serious negative health outcomes later in life. The purpose of this paper is to be among the first of exploratory studies to begin drawing more robust information about adolescent coping and textile arts, and to address how textile arts can be used as a meaningful and creative strategy to address the consequences of adolescents experiencing stress. Thus, textile arts can be used in therapeutic ways in order cope with both every day stresses and major life events, but there seems to be a gap in research in discussing if and how adolescents use textile arts to cope with life stresses. The following research question directed the course of this research:

How can textile arts be used as an effective coping tool for adolescents who have experienced stress, specifically hospitalization?

### **CHAPTER 3: METHODOLOGY**

This research study was a case study that explored textile arts as a coping mechanism for an adolescent who has experienced stress, in which qualitative research were conducted in order to better understand the research topic. The goal for the intervention for this study was to teach an adolescent how to knit and explore how the knitting process can be a way for adolescents to cope with hospitalization or other life stressors. Knitting was chosen as the preferred textile art for this study because of its current popularity, as well as it being cheaper and more portable than other crafts.

A case study represents a type of qualitative research in which the researcher aims to gain an in-depth understanding and detailed examination of an individual (or phenomenon), as well as the contextual situation involving the individual (Hancock & Algozzine, 2011). Additionally, case study research is an empirical investigation of an individual, or group, within its natural context, using various types of evidence (Yin, 2014). Yin (2014) states that case study research is the ideal method of research when “(1) the main research question are “how” or “why” questions; (2) a researcher has little or no control over behavioral events; and (3) the focus of the study is a contemporary (as opposed to entirely historical) phenomenon” (p. n/a). Finally, case study research is highly descriptive in nature, and employs quotes from the participant, as well as and narratives comprised from sessions and interviews, in order to create a clear picture of the situation being studied (Hancock & Algozzine, 2011).

Additionally, this research study incorporated heuristic inquiry principles. Heuristic inquiry is a research process aimed at the “exploration and interpretation of experience, which uses the self of the researcher” (Hiles, 2001, para. 6). This type of inquiry acknowledges the involvement of the researcher in the study, and the experience of the researcher can become a

focus of the research (Hiles, 2001). Since I have direct experience with textile arts and knitting, I felt it necessary to use myself in conjunction with my participant to gain a deeper understanding of the impact of knitting on one's coping experiences. As a child, my grandmother taught me how to knit and sew. From that time forward, I have found myself engaging in textile arts in much of my free time. Textile arts have helped me relax during stressful times, stay engaged when not much is happening, and provided a sense of joy when I create something new. Because I have seen the fruits of my grandmother passing down a useful skill onto me, in turn I want to be able to share with others what this skill has done for me. In this study, the researcher was also the facilitator, teacher, and knitting enthusiast, but for simplicity will be referred to as the researcher throughout the remainder of the study.

## **Participant**

After receiving the University and Medical Center Institutional Review Board (UMCIRB) approval through East Carolina University and Vidant Medical Center (see Appendix A), a participant was recruited with the help of the manager of the child life program at the James and Connie Maynard Children's Hospital at Vidant Medical Center in Greenville, NC. The child life specialists on the Pediatric floor identified patients that met the inclusion criteria, and found one patient willing to participate in the study. Inclusion criteria for participation was as follows: (a) adolescents must be between 12 and 17 years of age, (b) experiencing a life stressor, and (c) be interested in learning the art of knitting. One adolescent participant was identified by the child life manager. Parental consent, consent to be contacted, and participant assent forms were signed by the mother and participant, and gathered by the child life specialist. The Parent Consent for My Child form can be found in Appendix B, Consent to be Contacted form can be found in Appendix C, and the Participant Assent can be found in

Appendix D. Then appropriate session times were communicated to the researcher. Session times for this study were scheduled while patient was admitted to the hospital. Participation was voluntary and no compensation was provided. However, in order to optimize the retention of the participant, the participant was incentivized with learning a new skill as well as took ownership of all knitting materials and products used in the study.

The participant was a sixteen-year-old, African American female, in the eleventh grade. She was admitted to the James and Connie Maynard Children's Hospital as an inpatient due to a pain crisis. She was previously diagnosed with Sickle Cell Disease, a chronic illness, and is very familiar with hospitalization and procedures. For the purpose of this study, the participant has been assigned the pseudonym Veronica and will be referred to this throughout the results and discussion.

### **Procedures and Data Collection**

The researcher served as the knitting instructor and provided one-on-one knitting instruction with the participant. The participant participated in three knitting sessions. The goal was for the participant to learn how to knit either a dish rag or a scarf, depending on the participant's desires and skill level. The following three main knitting skills were originally planned be taught during these lessons: the basic knit stitch, binding off, and casting on. However, because of the participant's wishes, only the basic knit stitch was taught. Each session is outlined below:

**Session One.** Before the first knitting session began, the certified child life specialist (CCLS) introduced the researcher to the participant. After introductions, the researcher provided the participant with the demographic questionnaire to complete. Once the form was finished, there were additional introductions and the researcher asked general "get to know you" questions



to create comfortable and emotionally safe environment as well as to establish rapport with the participant. Examples of these questions include: (a) What do you like to do for fun?, (b) Do you have any pets?, and (c) What do you want to do when you grow up?

Then it was time for the knitting session to begin. Because casting on and knitting the first few rows of a new project can be the most challenging part of knitting, the researcher brought knitting needles already prepared with five rows of fifteen stitches. The previously prepared needles were intended for a greater potential for success for the participant. The researcher then taught the basics of the knit stitch. Once the participant had some time to practice on his/her own, the lesson concluded. Throughout each session, open-ended questions were asked to encourage conversation and information sharing. Session one lasted approximately ninety minutes.

**Session two.** Session two began with some time to catch up with the patient, and introduce more “get to know you” questions. The researcher assessed how the participant was doing with the knitting process, and allowed the participant to practice the basic knit stitch as a refresher. The participant did not bring the knitting material given to her during session one, as her admittance to the hospital was emergent in nature, so the researcher provided the patient with a new set. The researcher was prepared to teach the participant how to bind off, as each session was intended to teach a new skill and increase in difficulty. However, the participant did not want to learn how to bind off, so the researcher assisted the participant with additional knit stitch practice. The researcher took a photo of the participant’s knitted product to be added to the qualitative data. Session two lasted approximately one hour.

**Session three.** The final session began with a similar time of catching up, recapping the participant’s knitting between sessions, and asking more “get to know you” questions. The

researcher originally planned to teach the participant how to cast on, but again the participant was content with continuing with the knit stitch and engaging in conversation. Following the knitting session, the researcher conducted an open-ended question interview, in which the instructor asked the participant questions about her knitting experience. The researcher hand-transcribed the participant's responses to the interview questions. Session three lasted approximately one hour.

### **Materials**

The participant received a set of knitting needles, a ball of yarn, and a tote bag for the knitting materials. The participant was able to keep knitting materials for her own personal use. She was asked to bring the knitting materials with her to each session following the first, but replacements were provided for sessions when materials are not brought after the first session. Below is an image of the provided materials.

Image 1

*Materials Provided to Participant*



## Measures

**Survey.** A demographic questionnaire was developed specifically for this study. Demographics and general information were collected in the study including age and gender. The entire questionnaire can be found in Appendix E.

**Open-ended interview questions.** In addition to the survey, open-ended questions were asked in the form of an interview following the final knitting lesson. The responses were used to gather the qualitative data for this study. The interviewed was hand-transcribed by the principle investigator. Some of the questions included: 1) Tell me about your knitting experience. 2) What have you learned about yourself throughout this process? and 3) How does knitting make you feel? A full list of the open-ended questions can be found in Appendix F.

Data from this study will be stored in 133 Rivers West ECU for 6 years following completion of the study. After 6 years the data will be shredded. No names or identifying information will be associated with the raw data.

## Data Analysis

A thematic analysis was conducted based on direct quotes from the participant's open-ended interview questions, and conversations and interactions between participant and researcher during the knitting sessions. According to Clarke and Braun (2017), "thematic analysis is a method for identifying, analyzing and interpreting patterns of meaning ('themes') within qualitative data" (p. 297). Thematic analysis provided a systematic procedure for producing codes and themes from the collected qualitative data.

The participant's responses from the demographic survey were used to gather information about the participant and helped identify potential stressors in the participant's lives. The participant's responses from the open-ended interview questions were used to determine if

and how knitting was used as an effective coping tool for participant's in dealing with stress. The questions aimed to gather information about what her knitting experience was like, how knitting made her feel, and how/if she will use knitting in the future.

The answers to the open-ended questions were further examined upon re-reading and coding the hand transcriptions. The researcher examined unique features from the participant's experience, perceptions of the knitting experience, and what the knitting experience meant to the participant. Themes were examined throughout interview answers, and dialogue that was transcribed during the knitting sessions.

## **CHAPTER 4: RESULTS**

Three knitting sessions were completed with one participant, followed by an open-ended question interview. To follow, will be a detailed description of each session trailed by the transcription of the open-ended question interview and major themes that arose from the sessions. The sample included a sixteen-year-old, African American female, who was admitted to James and Connie Maynard Children's Hospital as an inpatient. She has a sickle cell anemia, a chronic illness, and is very familiar with hospitalizations. Her diagnosis shared by the child life specialist as part of the research study inclusion criteria. All three sessions took place in the participant's hospital room in the Pediatric Unit of the hospital. For ease of reading, the following sessions will be presented from the researcher's perspective. Furthermore, a pseudonym was allocated for the participant to protect the identity of the participant. For the remainder of the study, the participant will be referred to as Veronica.

### **Session One**

Prior to my initial arrival to the hospital to begin sessions with Veronica, certified child life specialists (CCLSs) at James and Connie Maynard Children's Hospital identified her as being match for the study. She met all inclusion criteria, and once Veronica agreed to participate, she and her mother signed the Consent to be Contacted, Parent Consent for My Child, and Participant Assent forms with the CCLS. I was then contacted by the CCLS, and we arranged a session during her hospital admission, at a time that was most beneficial for Veronica. Upon arrival to the hospital for our first session, I first met with the CCLS in order to gather basic background information regarding the patient such as age name, age, gender, diagnosis, and reason for hospitalization. The CCLS then introduced me to Veronica, and our first knitting session began. The first session took place in the afternoon and lasted around ninety minutes.

The knitting session took place in Veronica's hospital room, in which she remained in her bed and I taught at the bedside.

I introduced myself to Veronica and shared with her the reasons why I was visiting, to "hang out" and to teach her how to knit. Consistent with heuristic inquiry principles, I explained why knitting was important to me, and how I got started. I shared that when I was younger than Veronica, my grandmother taught me how to knit, and explained how and why it became such an important activity for me. I also shared "fun-facts" about my life to start building rapport with the patient. I then asked Veronica some questions to get to know her better and with the purpose of starting to build the foundations of a trusting relationship. Some of questions I asked her included, "Do you have any pets?", "What do you want to be when you grow up?", and "What do you like to do for fun?" Conversation came easy between the two of us, as she seemed very outgoing as evidenced by the ease in which she engaged in conversation with me and responded to my questions with in-depth answers, and then started asking me questions as well. She was smiley, made eye-contact with me throughout our conversations, and remained chatty during the entirety of our time together. She also expressed interest in learning how to knit by stating, "When [the CLS] asked me if I wanted to learn to knit, I told her I definitely did."

Prior to the start of our first knitting session, I provided Veronica with the Demographic Questionnaire. The completed Demographic Questionnaire can be found in Appendix E. As she was filling out her questionnaire, she was explaining her answers in more detail to me, displaying little reservations in sharing about her personal life. She recorded being a black, 16-year old female, currently in the 11<sup>th</sup> grade. She checked facing the "death of someone important to [her]", and "hospitalization" as life experiences that have been a part of her story. And she noted her mother, brother, and dog as the people who live with her in her household, but

recorded cousins, grandma, and aunties as people who are in her family that don't live in the house. Throughout our time together I learned about her three sisters and her father (she showed me pictures), yet this was not recorded in the questionnaire she completed. She was fairly general in her conversation about her family members, so I did not probe for more information. I felt that she would share more details about her family as she felt comfortable.

After completing the questionnaire, I then began the process of teaching her how to knit. It took a minute for her to get focused, as she was concentrating on responding to messages on her cell-phone. But, she then decided to put her phone face-down on her bed and devoted her full attention to the lesson. The materials I provided for Veronica had three rows of fifteen knitted stitches that were previously knitted onto the needles. Salient the heuristic inquiry, my grandmother taught me that it is easier to learn to knit when projects have already been started. I began the lesson by slowly demonstrating how to do each step of the knit stitch process. I divided each knit stitch into four distinct steps- "front to back," "wrap back to front," "pull through," and "take off." As I was demonstrating each step of the stitch, I would state the name of the step with a certain cadence that sounded as I was reciting a poem. These steps were created with the intention of serving as a memory tool. I also provided the patient with a handout of these step for reference when I was not there to help her remember the steps. A picture demonstration of these steps can be found in Appendix G.

I knit halfway down the row, approximately seven stitches, and then asked her to tell me what to do next. She slowly began reciting, "front to back," "wrap back to front," as I demonstrated the motions of the stitches. After the first row was complete, I handed the knitting needles and yarn to her and allowed her to begin trying. She had no physical limitations, and was able to hold the knitting needles without difficulty. At first her hands were confused with what to

do with the foreign objects, but with direction from me, she slowly became more confident with each stitch. In the beginning of the learning process she got visibly frustrated and stated, “it’s sad because it’s fun, but I keep messing up.” She would complete a few stitches in a row, but would then forget how to do it. When this happened, I reminded her of the steps by referring to the memory tool. With encouragement, she kept trying and continued to work on her knitting.

Throughout the session, once she was able to knit without my assistance, she opened up with me and shared about many areas of her life including: family, friends, boys, school, hospital experiences, her illness, and recent panic attacks. She shared about drama between her best friend and a boy she used to date, and asked for my opinion. She then told me about the panic attacks she has been experiencing since she’s been admitted to the hospital, and how terrified they make her. She claimed that she will get them anytime she falls asleep, and she gets scared she might die. Furthermore, she talked she wonders if it is the medicine she is taking, and how she had told the doctors about her panic attacks but they were not sure what was causing them. Veronica made it clear that the panic attacks have been the most stressful part of this admission to the hospital.

She continued sharing stories, showed me photos of family and friends, and even introduced me to all her visitors that came throughout our time together. She had multiple friends visit during our session, and to each person that came in she said, “this is Ashley, she is teaching me how to knit.” Even with friends in the room, she remained focused on the knitting process and talking with me. About halfway through the session she put her knitting down to check her phone. She showed me her SnapChat and talked about some of her friends that sent her photos. She even asked to take photos with me so she could remember me when she went home. She stated, “I have a photo wall at home, and the CLSs print out pictures I take when I’m here so I



can remember my visits.” At one point the chaplain visited her to offer prayer. She accepted the prayer, but once he left she told me that the chaplain (accidentally) spit on her during the prayer and she “didn’t appreciate it.”

As we neared the end of our knitting session, Veronica voiced, “At first [knitting] was frustrating because I didn’t know how to do it, but then once I started figuring it out I felt really good about myself.” She spoke about how she was proud of herself for not giving up, even when knitting seemed difficult at first. She worked consistently on her knitting until our time was coming to a close and I communicated that she could take a break whenever she wanted. At the close of our session, she asked if I could stay a little while longer and color with her for a bit. I stayed and she invited me to sit at the foot of her bed, and gave me coloring materials to “work on.” This invitation created closer physical proximity between us, as I was seated in a chair bedside during our knitting sessions. We continued learning more about each other’s lives as we colored together. She seemed very relaxed, as evidenced by her calm demeanor and body posture, and took initiative in our conversation. I felt comfortable letting her take the lead in our conversation and discussing things in which she was interested. When it was time for me to leave, she voiced being very excited for me to return in the the future. Veronica was discharged two days after our first knitting session, and I was unable to see her for a second session during that admission to the hospital.

## **Session Two**

The second knitting session took place roughly a month after the first session, as Veronica had been admitted to the hospital once again. The CCLS reached out to me, we decided on a mutually convenient time for me to meet with Veronica. The session took place in the morning, shortly after Veronica woke up for the day, and lasted roughly sixty minutes. Again,

this session took place in her hospital room in which she remained in the bed, and I taught at the bedside. Veronica was on contact/droplet precautions, so I was required to wear a gown, gloves, and mask while in the room with her. She expressed excitement to see me by smiling and welcoming me into her room. She voiced that she was happy to have another knitting lesson because she forgot how to since our last session. She did not bring her knitting supplies with her, so I provided her a new set. She was thankful for the new set, as she was worried because she forgot her other supply at home that we wouldn't be able to have a lesson.

Similar to the first session, getting started was a bit of a process as she was distracted with her phone. She voiced needing to respond to all her messages before she could begin. However, once she put her phone down she was fully focused on the knitting lesson. Veronica needed a reminder on how to knit, so I demonstrated how to knit again using the four step process reciting the names of the steps as before. She immediately caught back on, reciting the words to the four step process. The demonstration with hospital gloves was a bit of a challenge, but my role during session 2 was primarily that of instructor and supporter. Before long, she was knitting at a faster and more confident rate than at any point during the first session. After the initial instruction, she rarely asked for assistance except for a few times when she was starting a new row. Again, just as in the first session, once she was comfortably knitting again, conversations began to flow.

During this second session, a scheduled medication infusion was required to take place. According to both the patient and her nurse, this type of infusion is particularly painful. The medication was to be administered through her IV that had been placed in her foot the previous day. Veronica asked me to hold a heat pack on her foot, as the medicine was administered through her IV with the hopes that the heat pack may diminish some of the pain. She was

worried it would “burn really bad,” as it always had in the past. I encouraged her to continue knitting while the nurse administered the medicine. The nurse gave the medicine and Veronica did not flinch. She asked the nurse why she had not given the medication yet, and the nurse informed her it had already been given. The patient exclaimed, “Wow, that’s so awesome! I didn’t even feel it. I guess the knitting kept me distracted.”

During session two, conversation came easier, and she opened up more and more about her personal life, relationships, hospitalization, and frustrations attached to her illness. This session she specifically shared more about her relationships with boys and her frustrations with this hospitalization and feeling like certain doctors were not listening to her. Specifically, after the team of doctors conducted rounds in her room during our session, she pointed out to me which doctor she liked and which one she did not. She spoke about the doctor she did not like, insisting that she did not think the doctor believed that she was in actual pain. She shared that she would ask the doctor if she could up her pain medication, but that specific doctor never did. She explained how the other doctor (the one she likes) will “actually increase my medication if I need it, but the other one doesn’t think I’m serious.” She mentioned multiple times that the pain she was experiencing during this admission was her biggest stressor.

She was also frustrated that because her boyfriend has the same disease she has, he is unable to visit due to the risk of him receiving the virus for which she was admitted. She expressed missing him along with other friends that she is unable to see while hospitalized. Veronica stated, “I can feel alone sometimes when I’m here. Even though my mom comes at night, I can get lonely here during the day. It’s nice that you’re here because it gives me someone to talk to.” Conversation remained constant until our time together came to an end in session

two. At the close of the session, she thanked me for my time and voiced being excited for me to return. Below, in Image 2, is a photograph of her knitted work after the second session.

Image 2

*Veronica's Knitted Sample*



### Session Three

Session three occurred in the afternoon the day following session two, and lasted approximately one hour. The third session happened much the same as the previous ones. The CCLS informed me of a convenient time to meet with Veronica, and I arrived at the hospital during that time. As with session two, Veronica was sitting up in bed and I seated at her bedside. Conversation began quickly upon my arrival, and this time she put her phone down almost immediately upon my arrival. She reported “feeling better today” and visibly looked to be doing better as well. She smiled more and was sitting up straighter in her bed than she was the day before. She actively began knitting right away, moving with more speed than the previous two sessions. Again, she shared about her personal life with me as she was knitting. We talked about school, her friends and family, future career dreams, and so on. Veronica discussed the fight she was in with her best friend, and her frustrations with her friend not understanding her side of the story. She shared her hopes to start working after she graduates high school, and her desires to have a lasting and loving relationship. I chose the role of active listener and supported her taking the lead in conversations during our time together because during her hospitalization, she voiced having limited choice and control.

At one point during session three, a Vidant police officer came to visit her and she kept calling him “dad.” Once he left she explained how that wasn’t her “real dad,” but just a family friend. She showed me pictures of her biological father along with her three sisters. She asked to take another photo with me so she could always remember our time together. She decided we needed to make sure our knitting needles made it into the photo so, “I can always remember that it was *you* that taught me how to knit.”

During our conversations about her life she would interject comments about knitting. She said things like, “I used to think knitting was just for old people, but this is actually really cool. And fun.” and “Now I can knit with my grandma because she likes to knit but I didn’t know how to before.” At one point during the session her sister called and Veronica exclaimed, “come to the hospital, I want to teach you how to knit!” During another moment, a doctor came in the room and asked, “What are you knitting?” and Veronica responded, “I don’t know yet, wherever the yarn takes me.” I enjoyed watching her knit so freely during this session, and express such interest and excitement about it. Even if knitting is not something she continues throughout time, it is exciting to know it has been a fun and powerful distraction for her while being recently hospitalized.

As our final session came to a close, Veronica agreed to participate in the closing Open-Ended Interview Questions. Upon our goodbyes, Veronica thanked me for my time and for teaching her how to knit. She voiced, “I like how you taught me something new, but we could still talk about real things. That’s cool. And the other kids are gonna be lucky when you teach them.”

**Open-ended question interview.** This interview took place immediately following the final knitting session during session three. Veronica remained sitting up in her bed, and she invited me to sit at the foot of her bed so I could easily transcribe her responses. Following the interview, we talked a bit more, before saying our final goodbyes. The Open-Ended Interview can be found below and in Appendix F.

Researcher: Tell me about your knitting experience.

Veronica: *“I like it. It’s fun. And you’re very cool.”*

--

Researcher: What have you learned about yourself through this process?

Veronica: *"That I can do anything that I sit there and listen to. Because sometimes I don't want to do things, so I don't listen and I don't even try."*

*"I like the way you motivate me. You help me to not give up. I also like how we talk about other things when we are together- other than knitting. Sometimes when other people come in here, all they want to talk about is that other thing, and I don't like that."*

--

Researcher: Think about the times you knitted. When would you turn to knitting?

Veronica: *"I was trying to show my mommy how to do it when I was home, but I forgot how to do it so I kinda got sad. So I'm glad you came back to teach me more."*

--

Researcher: When you are knitting, how do you feel?

Veronica: *"Cool."*

--

Researcher: What is your favorite thing about knitting?

Veronica: *"Playing with the sticks. I also feel very accomplished when I learned how to do it. It shows me I can do things when I decide I want to."*

--

Researcher: What is your least favorite thing about knitting?

Veronica: *"Trying to redo things. And then flipping it over to the other side gets tricky. I get used to it on one side, so when I have to do it on the other side I'm not used to it."*

*"You also have to be patient to knit. It takes a long time. But I'm getting faster."*

--

Researcher: When do you see yourself taking the time to sit down and knit in the future?

Veronica: *“I don’t know. Maybe when I teach my kids one day. Or if I get bored or lonely and need to take my mind off something.”*

## **Themes**

After thoroughly examining all quotes and specific examples of interactions with Veronica, I began the coding and thematic analysis process. Upon first examination, I coded quotes and interactions with Veronica using the words: accomplishment/motivation, satisfaction, distraction, and creativity.

### **Accomplishment/motivation:**

- “It’s sad because it’s fun, but I keep messing up.”
- “At first [knitting] was frustrating because I didn’t know how to do it, but then once I started figuring it out I felt really good about myself.”
- “You also have to be patient to knit”
- “I also feel very accomplished when I learned how to do it. It shows me I can do things when I decide I want to.”
- “I like the way you motivate me. You help me to not give up.”
- “...that I can do anything that I sit there and listen to. Because sometimes I don’t want to do things, so I don’t listen and I don’t even try.”

### **Satisfaction:**

- Veronica said she feels “cool” when she is knitting.
- “I like [knittin]. It’s fun”
- “I used to think knitting was just for old people, but this is actually really cool. And fun.”



#### Distraction:

- When asked when she sees herself knitting in the future, Veronica stated “if I get bored or lonely and need to take my mind off something.”
- Wow, that’s so awesome! I didn’t even feel it. I guess the knitting kept me distracted.”

#### Creativity:

- When asked what she was making Veronica replied, “I don’t know yet, wherever the yarn takes me.”

The common thread among these words was positive feelings related to self-worth.

Therefore, these words were collapsed into one category and a theme was created. This theme is that knitting can be frustrating and challenging in the early stages, but once getting past the learning curve it can foster feelings of accomplishment, motivation, satisfaction, distraction, and creativity.

Next, among the quotes and interactions a natural grouping emerged based on conversations and relationship building.

- “I also like how we talk about other things when we are together- other than knitting. Sometimes when other people come in here, all they want to talk about is that other thing, and I don’t like that.”
- “I like how you taught me something new, but we could still talk about real things. That’s cool.”
- “I can always remember that it was *you* that taught me how to knit.”
- “I can feel alone sometimes when I’m here. Even though my mom comes at night, I can get lonely here during the day. It’s nice that you’re here because it gives me someone to talk to.”

- Veronica invited me to stay past our designated time to color with her.

Finally, the bulk of the remaining quotes and interactions revolved around the ideas of generativity and the passing on of skills.

- When asked when she sees herself knitting in the future, Veronica stated, “Maybe when I teach my kids one day.”
- Veronica attempted to teach her mother how to knit after Session One.
- “...and the other kids are gonna be lucky when you teach them.”
- While talking on the phone with her sister, Veronica said, “Come to the hospital, I want to teach you how to knit!”
- “Now I can knit with my grandma because she likes to knit but I didn’t know how to before.”

As a result of the thematic analysis, three major themes that have been identified. They are as follows:

1. Knitting can be frustrating/challenging in the beginning. But once getting past the learning curve, it can foster feelings of accomplishment, motivation, satisfaction, distraction, and creativity.
2. Knitting can be a doorway for conversations and relationship building.
3. Learning a new skill can create feelings of generativity in others and a desire to share/pass those new skills on to other people.

**Theme one.** As described in Session 1, knitting initially made Veronica sad because she felt as if she could not get it. In the interview, she reiterated how she was sad that she could not remember how to knit when she tried to teach her mother after Session 1. But once she understood the knitting process more clearly, things changed for Veronica. She began to realize

the multiple ways in which knitting can be beneficial. First, she indicated feelings of accomplishment, motivation, and satisfaction. At the end of session two she stated, “At first [knitting] was frustrating because I didn’t know how to do it, but then once I started figuring it out I felt really good about myself.” When asked about the knitting process she stated, “I also feel very accomplished when I learned how to do it. It shows me I can do things when I decide I want to.” Veronica mentioned numerous times how knitting was “fun” and “cool.”

Second, Veronica also reported knitting being a positive distraction. She was initially drawn to the study because she believed knitting could help distract her from hospitalization. Throughout our time together, she saw this become reality. During Session two she said, “Wow, that’s so awesome! I didn’t even feel it. I guess the knitting kept me distracted.” in response to not feeling a normally painful medication infusion. In her closing remarks during the open-ended interview, when asked when she sees herself knitting in the future she reported, “...if I get bored or lonely and need to take my mind off something.”

Finally, knitting can foster a sense of creativity. This is displayed during the third knitting session. Nurses and doctors kept asking if she was knitting a scarf, or a blanket, until she finally exclaimed, “I don’t know yet, wherever the yarn takes me.” Riley et al., 2013 reported that knitting provides a creative outlet for personal self expression, and this was the case for Veronica. She would not allow others dictate what she created, it was to be discovered as she continued in the knitting process.

**Theme two.** Knitting can be the facilitator for emotional connection and building relationships. Initially, knitting was the common ground that brought us together, but as we talked about knitting, conversation morphed into personal dialogue and a genuine emotional connection. She revealed very personal things to me such as situations with her boyfriend,

family, best friend, doctors, and hospitalization. She expressed fears, hopes, dreams, and pain. Then, when asked about the knitting process during the interview she voiced, “I also like how we talk about other things when we are together- other than knitting. Sometimes when other people come in here, all they want to talk about is that other thing, and I don’t like that.” Then, at the close of our final session she stated, “I like how you taught me something new, but we could still talk about real things. That’s cool.” Knitting was the reason we met, but was also the common ground that laid the foundation to our relationship.

**Theme three.** Learning a new skill is not only for oneself, but can be shared with others. Once knitting is learned, it can become a skill that creates desires within to be shared or passed on to others. This is true for Veronica. Multiple times she mentioned wanting to teach others how to knit, or share with others in the knitting process. During Session 2 she mentioned how she wanted to teach her mother how to knit after she learned during Session 1. Later in Session 3, she described how she also wants to teach her sister how to knit. Additionally, she shares, “now I can knit with my grandma because she likes to knit but I didn’t know how to before.” And finally, in our last moments together she tells me how she’s excited for the other children who get also get to learn to knit from me like she did. She told me, “I like how you taught me something new, but we could still talk about real things. That’s cool. And the other kids are gonna be lucky when you teach them.”

Overall, these knitting sessions provided more than just a means for Veronica to learn a new skill. For Veronica, knitting was a distraction from hospitalization which typically comprises of boredom and loneliness. Knitting also helped distract from pain and a painful infusion. Learning to knit was also a doorway to conversation, and the beginnings to building a

trusting relationship. Finally, knitting provided a means for the patient to experience positive emotions such as increased motivation, creativity, excitement, and satisfaction.

## **CHAPTER 5: DISCUSSION**

This was one of the first case studies that explored how textile arts, specifically knitting, can be used as a coping mechanism for adolescents who have experienced stress. This scientific process of exploring the benefits of knitting by adolescents as a strategy to managing stress, provided insight and valuable information that can contribute to further research on this topic. Today, adolescents are experiencing a myriad of adverse childhood experiences that are putting them at risk for negative health functioning throughout their lifespan (Santoro et al., 2016). It is important to identify healthy ways of coping for these adolescents, and this study demonstrates how knitting can be utilized as a means of coping with stress that accompanies hospitalization.

### **Development**

When examining Veronica's overall development, other than her illness, she appeared to be a typical developing adolescent. She had no apparent mobility, cognitive, social or emotional limitations. She reported doing well in the eleventh grade, spoke often of her relationships with friends and family, and connected with her loved ones through technology, when they were not present with her in the hospital. Veronica easily engaged in conversation with others, and actively discussed future hopes, dreams, and plans.

While hospitalization is a regular occurrence, as often as once a month, for Veronica due to her chronic illness, hospitalization is still considered a non-normative stressor in her life and has the potential to threaten her typical development. As stated by Veronica, hospitalization is always frightening and she feels many frustrations that come with hospitalization and her illness. Some of these frustrations include: isolation from friends, lack of control over her body and the hospital environment, fear of pain, lack of privacy in the hospital room, and disruption to her normal routine.

## **Stress and Coping**

Exploring sources of stress associated with repeated hospitalizations, Veronica identified certain aspects of hospitalizations as her main sources of stress. During our first session together, she expressed that her main stressor were the panic attacks she would experience whenever she tried to sleep in the hospital. She had never previously experienced panic attacks before this admission, so she was afraid she might stop breathing in her sleep and never wake up. During one of our first knitting sessions, she expressed these fears to the medical team, but was told that they had no medications to help with this. After the medical team left the room, she seemed very concerned and communicated to me a lack of understanding about why they could not help her. During the second and third sessions, her main stressor was the pain associated with the reason for admittance to the hospital- viral infection and pain crisis.

According to Lazarus' Transactional Model of Stress and Coping (Lazarus and Folkman, 1987), panic attacks and pain would be considered the "stress" during Veronica's hospitalization. The patient's primary appraisal was that her panic attacks and her pain were very real, scary, and unwanted. She was fearful about how the panic attacks and pain might affect her overall well-being. Her secondary appraisal was that she felt safe being in the hospital because people were around to help; however, she reported being worried that there was no medication for the panic attacks and was frustrated that one doctor did not seem to take her pain seriously. Just as Lazarus and Folkman (1987) suggest in their model, Veronica recognized the specific stress she was experiencing, and appraised the stressor to determine the personal significance of what was going on and why it mattered.

Social support appeared to be Veronica's primary external resource that helped her process through the stress of hospitalization, with social support being a main resource. Even in

just the short amount of time I spent with her, she had numerous friends visit her, and received several phone calls from family and friends each session. She had balloons and flowers displayed in her room, given to her from loved ones, and she explained that her mother brings her dinner every night once her mom gets off work. When evaluating her internal resources, it seemed apparent that she possessed a high level of self-esteem. In our time together, she explicitly stated that she believed herself to be beautiful, to be a good friend, and voiced being confident in telling the doctors what she needed. She stated, “I know my body better than them, so I know when I need more pain medication. They can’t feel what I feel in my body, so I have no problem telling them what I need.”

Because Veronica does not have a curable illness, problem-focused coping would not be a beneficial response. Determining emotion-focused coping skills would benefit Veronica, as effectively managing emotions connected to her illness. She voiced enjoying watching TV, listening to music, and playing on her phone as activities that help keep her distracted while being hospitalized. However, during our first session together Veronica voiced wanting to learn to knit because she wanted to learn a skill to help her relax. For this reason, she told me she agreed to participate in this study. During each session she voiced how knitting could help her during these particular stressful situations. She described how she was hopeful she could use knitting as a distraction from both her anxiety attacks and her pain. She also acknowledged that knitting would be a good way to stay entertained when she was by herself, and also a fun skill to teach others. Before even starting the knitting process, she recognized that knitting had the potential be used as a mechanism in her life to help cope with illness and hospitalization.

According to Brenner (1984) and Table 1 Adolescent and Childhood Patterns of Coping, Veronica followed the suppression pattern of coping. She accepted her diagnosis and reason for



hospitalization, but had the ability to temporarily pause anxieties in order to engage in more enjoyable activities. Whether it was learning to knit, or engaging in conversations with me or visitors, she was able to put aside her stress momentarily to enjoy her surroundings.

Additionally, according to Kuttner (1996) and Table 2 Adolescent Coping Styles, Veronica was a sensitizer in relation to coping styles. She sought to gain as much information as possible about her hospitalization whenever nurses or doctors visited her room. The more she knew about her condition, the more she felt she could manage.

### **Knitting**

As research suggests, knitting helps individuals clear his or her thoughts, and distracts from negative circumstances (Riley et al., 2013). It was clear that in this study, knitting truly served as a distraction for Veronica during our time together. It distracted from boredom, loneliness, constraint to her bed, and even from the pain of a painful medication injection. Riley et al. (2013) also noted that engaging in knitting can produce increased feelings of motivation, self-esteem, achievement, and personal growth. In this case, knitting served as a motivation for Veronica. She was determined/motivated to learn something new, and then expressed a great sense of accomplishment when she realized she could knit without my assistance. Knitting brought Veronica excitement, and a desired to share her excitement with others (her mother, sister, and grandmother).

As beneficial as these aspects of knitting were during this research project, I soon began to realize that this knitting process was quickly evolving into something more than just distraction and a beneficial hobby. For us, knitting became a mechanism for connection, and a catalyst for relationship building. My personal approach to my relationship with Veronica, were similar to that of Carl Rogers' Core Conditions. According to Rogers (1986), these conditions

are attitudes of the counselor (or researcher) to display acceptance of the client (or participant) as being valuable. The three conditions are congruence, empathy, and unconditional positive regard (McLeod, 2008) and are foundational to positive client outcomes (Rogers, 1986). Through congruence, I sought to be genuine and real with Veronica. I strived to develop a trusting relationship with her during our time together. I displayed empathy by attempting to understand Veronica's thoughts and feelings as she was experiencing them. Finally, by demonstrating unconditional positive regard, I allowed Veronica to share her thoughts and feeling with me without the fear of being judge or ridiculed. Though the purpose of the knitting sessions was to teach Veronica how to knit, the sessions were in actuality more participant and relational-focused.

During our first session when Veronica shared with me that she did not appreciate the chaplain spitting on her, I began to realize that in that moment she was beginning to place some of her trust in me. That was not information she shared with the chaplain, but she shared it with me. She was opening up, and slowly granting me permission into her life. It was interesting for me to see this trust in me grow throughout the sessions. Not only did she start to trust me with the stories and frustrations she was sharing, but she eventually invited me into the pain she was experiencing and asked for me to help her through the pain. The knitting needles and yarn were the tools that forged a new friendship. They were the reason for our relationship to begin and to grow. It was the common ground that connected us as individuals.

Veronica's responses to the knitting process demonstrate that knitting can be used as an effective coping tool for this adolescent in coping with her stress. Overall, knitting was beneficial for Veronica in multiple ways. Though the hope is that she will continue using knitting as a means to healthfully cope with stress, even if this is a craft that she does not continue pursuing

outside of our meetings, there are no doubts that our shared time together knitting served as a healthy distraction and a means to cultivating a new relationship. Even though the hospital may seem like an unlikely place for such things to happen, knitting created an opportunity for our relationship to begin. And knitting may create opportunities for the patient to create other relationships within or outside of the hospital walls.

### **Summary**

Overall, the results of this study validate that knitting can be used as an effective coping mechanism for adolescents who are experiencing stress. Though more research is needed in this field, this study indicates that knitting was beneficial with aiding in distraction, increasing motivation, creativity, and self-accomplishment, and creating trusting relationships.

### **Personal Reflections**

Throughout my time with Veronica, I was very surprised with how quickly rapport was established. She treated me more like a friend than an “adult conducting a research study.” Although, being close in age and the same gender was potentially beneficial in establishing such quick rapport. She offered for me to sit on her bed so I did not have to kneel/stand the entire time. She constantly checked on me to ensure I was comfortable. Any time doctors, nurses, friends, family, or other visitors came in the room, she introduced me to them and then insisted that I stay in the room while they were there. She never wanted me to leave, and often tried to find ways for me to stay longer. I believe that knitting is such an easy means to building a quick relationship with this patient. It created common ground, for conversation to then grow more freely because of the common space. While my relationship with Veronica started around learning to knit, knitting was the avenue in which deeper conversations emerged.

During our time together, I specifically chose to take the role of active listener and encouraged Veronica to lead in our conversations. Because she voiced on multiple occasions that she had limited choice and control while being hospitalized, I wanted her to have some control in our conversations and interactions. This also played out in how our knitting sessions transpired. It is important to note that the knitting sessions did not go as planned as originally decided during the study development. Veronica had no interest in learning the skills that were set out to be taught in sessions two and three- binding off and casting on. At first I felt frustrations of needing to get this tasks completed, but then I realized that these sessions can, and should, be altered depending on Veronica. She was only comfortable practicing the skills she knew, and did not want to progress to additional steps. Pushing her to learn new skills could have caused frustration and confusion on her end, so I decided to work at her pace and accomplish what she wanted to accomplish. Again, I gave her choices and control of our sessions.

Though I was not able to teach all that I originally planned as detailed in the methodology section, casting on and binding off, I was surprised with how quickly Veronica caught on to knitting. I was nervous before the sessions started that teaching an adolescent this skill might be frustrating or difficult for me. I found it was encouraging to see that she grasped the art quickly, and remained engaged in the process throughout all of the sessions.

Finally, it was encouraging for me, as the instructor, to be able to pass on my skills to someone else. I was thrilled knowing someone else had the potential to benefit from knitting in the ways I have in the past. Knitting is something that my grandmother taught me when I was a child, so to be able to personally pass on this skill felt like I was passing along my grandmother's passion and skill. Watching someone else find joy and pride in a skill that I taught her felt exciting and empowering, and I hope one-day Veronica can feel the same.

## Challenges

This study was not absent of numerous challenges and a few set-backs. To start, due to the nature of the study and working with hospitalized children, this study had to undergo two IRB reviews. The first IRB review was through East Carolina University, and the second was through Vidant Medical Center. I first submitted my IRB on March 23, 2017, and final approval from both institutions was granted on August 7, 2017. For over four months I was in a waiting period, during which I could not move forward with my study.

Unfortunately, this was only the first hurdle. Once the IRB was approved by both ECU and Vidant Medical Center, I was required to complete all the necessary steps to becoming a volunteer through Volunteer Services through Vidant Medical Center. This encompassed completing modules, training, submitting immunization records, and obtaining an access badge and parking pass, another time consuming process. Once volunteer training was complete and I was ready to start working with participants, I ran into the difficulty of recruiting participants. Working collaboratively with the CCLSs at Vidant, I quickly learned that obtaining a participant that met the inclusion criteria was not an easy task. Patients were either too young, too old, not interested, not in the hospital long enough, or not well enough to participate. I learned many valuable lessons about the research process, prior to the recruitment of even one participant.

I originally planned to recruit participants from the Pediatric Day Ambulatory Unit (Pday) and the Pediatric Units (Peds). After discussions with the CCLSs in Pday, it would prove virtually impossible to recruit participants from that unit as any attempt to schedule three knitting sessions with any single participant was challenging due to their limited stay in the unit. Thus, the decision was made to recruit participants from the Peds unit only.

Furthermore, even finding participants in Peds was challenging. During my time with Veronica in the study, I was all set up during her first admission to complete a second session with her, but by the time I arrived at the hospital she had already been discharged. It was only by chance that she was admitted a month later, during which I still had time to complete my study. There were additional challenges in working with this population.

I would arrive at the hospital to begin working with a new patient and he/she would be in therapy, or would be sleeping, or not feeling well, and thus was unable to participate. Also, because CCLSs do not work on the weekends at Vidant, I was unable to meet with patients two days out of the week. Therefore, after three months, and six trips to Vidant Medical Center from my residence in Raleigh, of attempting to recruit at least two participants, my thesis chair and I decided that I would end data collection with data from three sessions with one participant.

### **Limitations**

While there are many strengths of this his study, there are limitations worth noting. First, this study is not generalizable to the general public, as the study only examined one participant from one hospital. Despite our efforts to recruit more participants, only one participant expressed interest during our time-frame. Second, there is a potential for bias, as participants were recruited by CCLSs and enrollment of this study was not available to all adolescent patients in the hospital. Third, heuristic inquiry and my personal affinity for engaging in textile arts has the potential for creating researcher bias.

### **Future Directions for Research**

In future replications of this study, many improvements/alterations can be made to expand this study. Ideally, a much larger sample size would be utilized. More substantial evidence such as quotes, interactions, and interview questions could be gathered with more

participants. With a larger sample-size, data could be cross-examined between participants. Richer themes could be developed across participants, and difference/similarities could be discussed.

Additionally, creating a much larger population would also benefit this study. Being able to work with patient in various geographical locations (East/West, North/South, rural/urban, etc.) would add a variety of experiences and perspectives. For example, public perceptions of knitting could potentially vastly vary between rural Eastern North Carolina and inner-city Chicago.

Furthermore, another modification that would enhance this study is increasing the time-frame. Not only does this study require a significant amount of time to collect plentiful data, but the number of sessions could be increased as well. By increasing the time-frame of the study, researchers would be able to gather more participants, a greater amount of data, provide participants with more instruction, and potentially build deeper relationships with the participants. Another time alteration of this study would be to make it more of a longitudinal study. Having follow up session with participants for years to come could potentially yield very interesting results.

In order to increase the accuracy of quote and interaction transcriptions, audio-recording the sessions and interviews would strengthen this study. More quotes would be able to be transcribed, and it would enable the researcher to be fully with the patient, instead of partially focusing on writing down the important conversations.

Finally, including group sessions in addition to the individual sessions could be beneficial. Okey (2005) noted that learning to knit in a group setting cultivated community, increased peer mentoring, and encourage the sharing of skills. And Johnson (2015) noted that knitting in a group can create a peaceful, calm, and safe refuge for participants. Adding a social

element to the knitting process may add a favorable layer to this intervention. While it is clear that there are many limitations to this study, there are also numerous ways to improve the study for future researcher willing to examine how textile arts can be used as a beneficial coping tool for adolescents who have experienced stress.

### **Implications for Practice**

As a certified child life specialist, the results from this study have numerous implications for my practice. According to the Association of Child Life Professionals, certified child life specialists, “help infants, children, youth and families cope with the stress and uncertainty of acute and chronic illness, injury, trauma, disability, loss and bereavement. They provide evidence-based, developmentally and psychologically appropriate interventions including therapeutic play, preparation for procedures, and education to reduce fear, anxiety, and pain” (Association of Child Life Professionals, 2017). One of the first key elements in working with hospitalized children is creating trust and building rapport. As the results from this study suggest, knitting is a beneficial avenue to building relationships with adolescent patients.

Another element of my work as a CCLS is teaching non-pharmacological pain management skill to help reduce pain and stress. As seen in this study, I can use knitting with my patients as a means of distraction from pain, boredom, and frustrations ascribed with hospitalization. Knitting can also be used with patients as motivation, creativity, and and cultivating a sense of purpose.

While I have always loved to knit for personal gratification, I am looking forward to passing my skills on to patients whom could benefit from this art. I thoroughly enjoyed the time I spent sharing this art with the participant in this study, and am excited to see how it can be used with others to come.



## **Conclusion**

Overall, it appears that knitting can be used as an effective coping tool for adolescents experiencing stress. This study shows that knitting can be a catalyst for positive emotions, relationship building, and sharing skills with others, specifically for an adolescent coping with hospitalization and chronic illness. These findings are in-line with much of the non-empirical evidence found in literature today. Though more research is needed in this field of study, this exploratory study offers an exciting start to more fully examining how textile arts can be used as a coping mechanism for adolescents experiencing stress.

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## APPENDIX A: IRB APPROVAL LETTER



**EAST CAROLINA UNIVERSITY**  
**University & Medical Center Institutional Review Board Office**  
4N-70 Brody Medical Sciences Building · Mail Stop [682](#)  
600 Moyer Boulevard · Greenville, NC 27834  
Office [252-744-2914](#) · Fax [252-744-2284](#) · [www.ecu.edu/ORIC/irb](http://www.ecu.edu/ORIC/irb)

Notification of Initial Approval: Expedited

From: Social/Behavioral IRB  
To: [Ashley Boyd](#)  
CC: [Sandra Triebenbacher](#)  
Date: 8/7/2017  
Re: [UMCIRB 17-000429](#)  
Textile Arts and Coping

I am pleased to inform you that your Expedited Application was approved. Approval of the study and any consent form(s) is for the period of 8/7/2017 to 8/6/2018. The research study is eligible for review under expedited category #7. The Chairperson (or designee) deemed this study no more than minimal risk.

Changes to this approved research may not be initiated without UMCIRB review except when necessary to eliminate an apparent immediate hazard to the participant. All unanticipated problems involving risks to participants and others must be promptly reported to the UMCIRB. The investigator must submit a continuing review/closure application to the UMCIRB prior to the date of study expiration. The Investigator must adhere to all reporting requirements for this study.

Approved consent documents with the IRB approval date stamped on the document should be used to consent participants (consent documents with the IRB approval date stamp are found under the Documents tab in the study workspace).

The approval includes the following items:

Name	Description
APPENDIX%20B_C.docx	Surveys and Questionnaires
APPENDIX%20B_C.docx	Data Collection Sheet
Assent	Consent Forms
Consent_to_be_Contacted.docx	Consent Forms
HIPAA-Authorization-17-000429.docx	HIPAA Authorization
Open-Ended Interview Questions	Interview/Focus Group Scripts/Questions
Parent Consent for my Child	Consent Forms
Proposal	Study Protocol or Grant Application

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

## APPENDIX B: PARENT CONSENT FOR MY CHILD

East Carolina University



### Parent Consent for my Child to Participate in Research

Information to consider before taking part in research that has no more than minimal risk.

Title of Research Study: Textile Arts as a Coping Mechanism for Adolescents who have Experienced Life Stressors

Principal Investigator: Ashley Boyd (Person in Charge of this Study)

Institution, Department or Division: East Carolina University

Address: East 5<sup>th</sup> St. Greenville, NC 27858

Telephone #: (252) 328-6131

Study Coordinator: Dr. Lookabaugh

Telephone #: (252) 328-1336

Participant Full Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_

**Please PRINT clearly**

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Researchers at East Carolina University (ECU) and James and Connie Maynard Children's Hospital study issues related to society, health problems, environmental problems, behavior problems and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

#### **Why my child being invited to take part in this research?**

The purpose of this research is to explore how textile arts (knitting) can be used as a way for adolescents to cope with stress. You are being invited to take part in this research because you are a patient at James and Connie Maynard Children's Hospital, between the ages of 12 and 17, and are interested in learning how to knit. The decision to take part in this research is yours to make. By doing this research, we hope to learn how to knit and ways knitting can be used as a healthy way of coping with hospitalization.

If your child volunteer to take part in this research, you will be one of about 1-3 people to do so.

#### **Are there reasons my child should not take part in this research?**

I understand I should not volunteer my child for this study if my child is not between 12 and 17 years of age, or my child has no interest in learning how to knit

#### **What other choices does my child have if my child does not take part in this research?**

Your child can choose not to participate.

#### **Where is the research going to take place and how long will it last?**

The research will be conducted at James and Connie Maynard Children's Hospital. Your child will need to come to James and Connie Maynard Children's Hospital during your child's normally scheduled appointment times for the study. The total amount of time your child will be asked to volunteer for this study is 3 one-hour sessions over the next month.

**What will my child be asked to do?**

Your child will be asked to do the following:

- Fill out a demographic questionnaire.
- Participate in 3 one-hour one-on-one knitting lessons with the instructor.
- In the first lesson your child will learn how to do the basic knit stitch.
- In the second lesson your child will learn how to bind off in order to end a project.
- And in the final lesson your child will learn how to cast on in order to start a new project.
- Following the final lesson, your child will be asked to participate in an open-ended interview. Your child will be asked about your child's knitting experience.
- The open-ended interview will be transcribed by hand.
- We will also ask if we can take pictures of your child's completed knitted projects.
- You have the right to opt out of having photos taken of your child's knitted products.

**What might my child experience if my child takes part in the research?**

We don't know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. We don't know if your child will benefit from taking part in this study. There may not be any personal benefit to your child but the information gained by doing this research may help others in the future.

**Will my child be paid for taking part in this research?**

We will not be able to pay your child for the time your child volunteers while being in this study. However, your child will be able to keep all knitting materials you receive-needles and yarn.

**Will it cost my child to take part in this research?**

It will not cost your child any money to be part of the research

**Who will know that my child took part in this research and learn personal information about my child?**

ECU and the people and organizations listed below may know that your child took part in this research and may see information about your child that is normally kept private. With your permission, these people may use your child's private information to do this research:

- The University & Medical Center Institutional Review Board (UMCIRB) and its staff have responsibility for overseeing your child's welfare during this research and may need to see research records that identify your child.
- People designated by Vidant Medical Center.
- If your child is a patient at ECU or Vidant, a copy of the first page of this form will be placed in your child's medical records.

**How will you keep the information you collect about my child secure? How long will you keep it?**

Data from this study will be stored in 133 Rivers West ECU for 6 years following completion of the study. After 6 years the data will be shredded. No names or identifying information will be associated with the raw data.

**What if my child decides he/she doesn't want to continue in this research?**

Your child can stop at any time after it has already started. There will be no consequences if your child stops and your child will not be criticized. Your child will not lose any benefits that your child normally receives.

**Who should I contact if my child has questions?**

The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at (252) 328-6131 (days Monday-Friday, between 8:00am and 5:00pm).

If you have questions about your child's rights as someone taking part in research, you may call the Office of Research Integrity & Compliance (ORIC) at phone number 252-744-2914 (days, 8:00 am-5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director of the ORIC, at 252-744-1971 and the Vidant Medical Center Risk Management Office at 252-847-5246"].

**I have decided I want my child to take part in this research. What should I do now?**

The person obtaining informed consent will ask you and your child to read the following and if you agree, you should sign this form:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.
- I have been given a copy of this consent document, and it is mine to keep.

---

**Participant's Name (PRINT)****Signature****Date**

**Person Obtaining Informed Consent:** I have conducted the initial informed consent process. I have orally reviewed the contents of the consent document with the person who has signed above, and answered all of the person's questions about the research.

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**Person Obtaining Consent (PRINT)****Signature****Date**

## APPENDIX C: CONSENT TO BE CONTACTED

### **Consent To Be Contacted Form:**

#### **Consent to be Contacted About the Textile Arts and Coping Research Study**

I have been informed about the Textile Arts and Coping Research Study at James and Connie Maynard Children's Hospital, and I am interested in participating in this study. By providing the information below, I am giving my permission to be contacted by Ashley Boyd about the Textile Arts and Coping study at James and Connie Maynard Children's Hospital.

#### **Please provide the following information:**

Name:

Room Number:

Telephone Number:

By signing and dating below, I am giving my permission to be contacted by the research study team:

Signature \_\_\_\_\_ Date: \_\_\_\_\_

## APPENDIX D: PARTICIPANT ASSENT

East Carolina University



### ***Assent Form***

***Things You Should Know Before You Agree To Take Part in this Research***

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IRB Study # \_\_\_\_\_

Title of Study: Textile Arts as a Coping Mechanism for Adolescents who have Experienced Life Stressors

Person in charge of study: Ashley Boyd

Where they work: East Carolina University

Other people who work on the study: Dr. Lookabaugh

Study contact phone number: (704) 618-3466

Study contact E-mail Address: boyda15@students.ecu.edu

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People at ECU and Vidant Medical Center study ways to make people's lives better. These studies are called research. This research is trying to find out how textile arts (knitting) can be used as a way for adolescents to cope with stress or hospitalization.

Your parent(s) needs to give permission for you to be in this research. You do not have to be in this research if you don't want to, even if your parent(s) has already given permission

You may stop being in the study at any time. If you decide to stop, no one will be angry or upset with you.

### **Why are you doing this research study?**

The reason for doing this research is to see if knitting can help adolescents cope with hospitalization.

### **Why am I being asked to be in this research study?**

We are asking you to take part in this research because you are a patient at James and Connie Maynard Children's Hospital, you are between 12 and 18 years of age, and you are interesting in learning how to knit.

### **How many people will take part in this study?**

If you decide to be in this research, you will be one of about 2-3 people taking part in it.

### **What will happen during this study?**

You will be asked to do the following:

- Fill out a demographic questionnaire.
- Participate in 3 one-hour one-on-one knitting lessons with the instructor.
- In the first lesson you will learn how to do the basic knit stitch.

- In the second lesson you will learn how to bind off in order to end a project.
- And in the final lesson you will learn how to cast on in order to start a new project.
- Following the final lesson, you will be asked to participate in an open-ended interview. You will be asked about your knitting experience.
- The open-ended interview will be transcribed by hand principle investigator. Transcriptions will not be used for purposes outside of this study.
- We will also ask if we can take pictures of your completed knitted projects.
- You have the right to opt out of having photos taken of your knitted products.

Check the line that best matches your choice:

\_\_\_\_\_ OK to take photos of knitted products during the study  
 \_\_\_\_\_ Not OK to take photos of knitted products during the study

This study will take place at James and Connie Maynard Children's Hospital and will last for three, one-hour sessions.

**Who will be told the things we learn about you in this study?**

Only members of the study team will have access to information obtained in this research study.

**What are the good things that might happen?**

Sometimes good things happen to people who take part in research. These are called "benefits." The benefits to you of being in this study may be that you learn how to knit and use knitting as a way to cope with being in the hospital. There is a chance you will benefit from being in this research. We will tell you more about these things below.

**Will you get any money or gifts for being in this research study?**

You will not receive any money or gifts for being in this research study. However, you will be able to keep all knitting material you receive during the study- knitting needles and yarn.

**Who should you ask if you have any questions?**

If you have questions about the research, you should ask the people listed on the first page of this form. If you have other questions about your rights while you are in this research study you may call the Institutional Review Board at 252-744-2914.

-----

If you decide to take part in this research, you should sign your name below. It means that you agree to take part in this research study.

\_\_\_\_\_  
 Sign your name here if you want to be in the study

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Print your name here if you want to be in the study

---

Signature of Person Obtaining Assent

---

Date

---

Printed Name of Person Obtaining Assent



## APPENDIX E: DEMOGRAPHIC QUESTIONNAIRE

Please tell us a little bit about yourself by providing demographic information.

Describe your gender?

- ☐ Male
- ☐ Female
- ☐ Other – please describe \_\_\_\_\_

Describe your race/ethnicity? (Choose all that apply)

- ☐ White
- ☐ Black
- ☐ Hispanic
- ☐ Asian
- ☐ Native American/ Alaska Native
- ☐ Other \_\_\_\_\_

How old are you?

- ☐ 12
- ☐ 13
- ☐ 14
- ☐ 15
- ☐ 16
- ☐ 17
- ☐ 18

What year are you in school?

- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11
- ☐ 12

Everyone has lots of different life experiences. From the list below, please mark the ones that have been part of your life. (Please remember, only the research team will see your answers.)

- ☐ Separation / divorce
- ☐ Death of someone important to you
- ☐ Hospitalization (you or someone important to you)
- ☐ Jail / prison (someone important to you)
- ☐ Mental illness (you or someone important to you)
- ☐ Violence (in your home or neighborhood)
- ☐ Alcohol /substance abuse (in your home or neighborhood)
- ☐ Criminal activity (in your home or neighborhood)
- ☐ Homelessness (you or someone important to you)

Please list who lives in your household with you:

Please describe who is in your family:

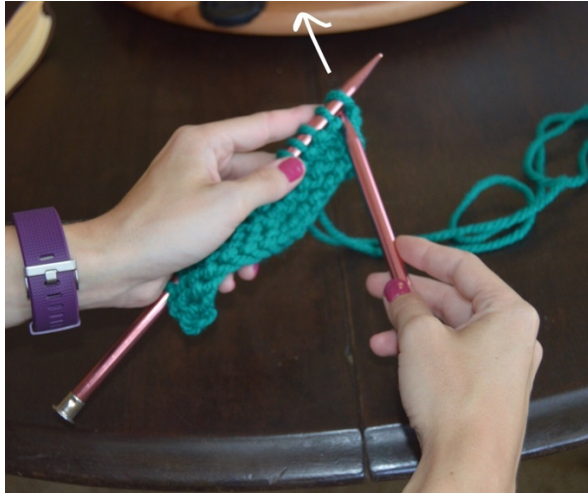
## APPENDIX F: OPEN-ENDED INTERVIEW QUESTIONS

1. Tell me about your knitting experience.
2. What have you learned about yourself through this process?
3. Think about the times you knitted. When would you turn to knitting?
4. When you are knitting, how do you feel?
5. What is your favorite thing about knitting?
6. What is your least favorite thing about knitting?
7. When do you see yourself taking the time to sit down and knit in the future?

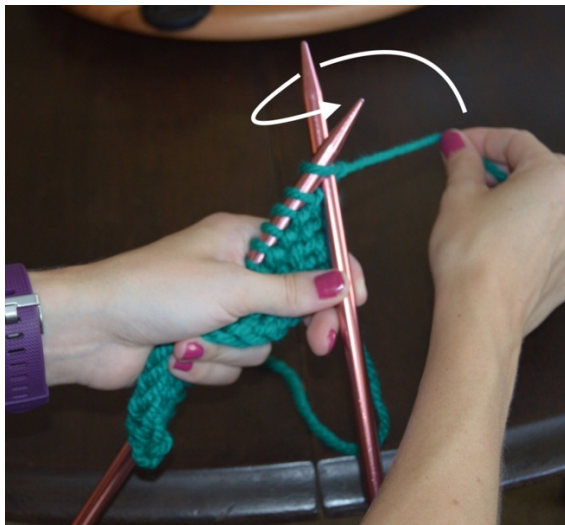
## APPENDIX G: KNIT STITCH STEPS

### Knit Stitch Steps

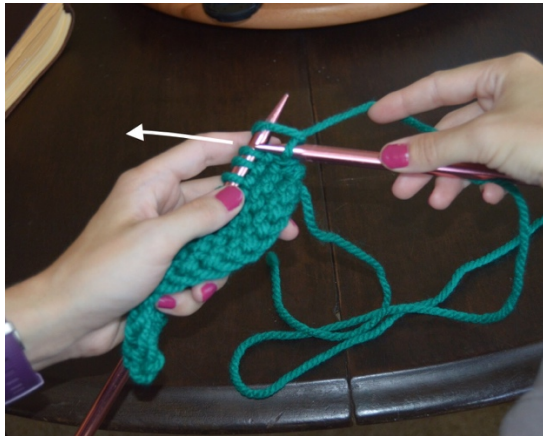
#### Front to Back



#### Wrap Back to Front



## Pull Through



## Take Off

